



This item was submitted to Loughborough's Institutional Repository (<https://dspace.lboro.ac.uk/>) by the author and is made available under the following Creative Commons Licence conditions.

 **creative commons**
C O M M O N S D E E D

Attribution-NonCommercial-NoDerivs 2.5

You are free:

- to copy, distribute, display, and perform the work

Under the following conditions:

 **Attribution.** You must attribute the work in the manner specified by the author or licensor.

 **Noncommercial.** You may not use this work for commercial purposes.

 **No Derivative Works.** You may not alter, transform, or build upon this work.

- For any reuse or distribution, you must make clear to others the license terms of this work.
- Any of these conditions can be waived if you get permission from the copyright holder.

Your fair use and other rights are in no way affected by the above.

This is a human-readable summary of the [Legal Code \(the full license\)](#).

[Disclaimer](#) 

For the full text of this licence, please go to:
<http://creativecommons.org/licenses/by-nc-nd/2.5/>

TRANSPARENCY, INDEPENDENCE AND IN-DEPTH WITH REGARD TO SAFETY ORIENTED ROAD ACCIDENT INVESTIGATION

Heikki Jähi*, Rachel Elliman** & Gilles Vallet*

*French National Institute for Transport and Safety Research (INRETS)
FR-69005 BRON France

Phone: +33 472142430 Fax: +33 472376837 E-mail: heikki.jahi@inrets.fr

**Vehicle Safety Research Centre (VSRC), UK

ABSTRACT

In the framework of work package 4 of the SafetyNet project, a European Commission supported research programme, the meaning of the concept of “independence”, its usefulness and applicability to road safety oriented accident investigation processes and their results was reflected upon. According to the project proposal, the work package was to draft good practice recommendations, applicable to all phases of data gathering and input, database management, data use and dissemination, with the aim of ensuring the quality of public European road accident data. It was to develop procedures for evaluating the “independence” of public European road accident databases and to draft recommendations for guaranteeing the “independence” of any future public European road accident database. During the first months of the project, the concept of independence was clearly defined. It applies to the investigation body. It has structural, financial and functional aspects. Some independent accident investigation bodies exist in aviation, maritime and rail transport sectors. For the investigation of road traffic accidents such independent bodies are rare. In the case of major road accidents, their investigation is usually conducted by multimodal accident investigation boards. In the case of more routine road accidents, there is no clear pattern in those countries, whose accident investigation practices were assessed. The status of the investigations and that of the persons conducting the investigations differs from one country to another.

When it comes to actual investigation practices, the concept of independence was found to be insufficient or even inappropriate. Progressively it became obvious that the independence of the investigation body and that of the investigation process do not resolve the question of the quality of investigations nor that of the quality of any subsequent data. The quality of the investigation work relies certainly on the impartiality of the investigating body, permitted by its independence, but also on the qualifications and experience of the investigators, as well as the investigation methods used during the actual investigation processes. Data quality itself depends on what questions are to be answered and how adequate the available data is for answering. It is not the knowledge about independence of the investigating body, but the availability of information on all relevant aspects of data acquisition and management processes that allow its quality to be assessed. It is the concept of transparency that corresponds to these aspects of the accident investigation data production processes.

Further consideration was given to the use of some key notions, such as “in-depth data” or “in-depth investigation”, which the road safety community generally takes for granted. Their relative fuzziness and their simultaneous use by professionals from different areas of expertise have caused misunderstandings in our discussions with experts who are not primarily oriented towards road safety. This has spurred an effort to clarify the vocabulary in use.

This paper examines the work package 4 work with a slight sociological overtone. The work package 4 deliverables can be found at the European Road Safety Observatory web site at http://www.erso.eu/safetynet/content/wp_4_independent_accident_investigation.htm.

1 SAFETYNET WORK PACKAGE 4

SafetyNet is an integrated project in the European Union 6th Framework Research Programme, running from May 2004 to April 2008. The aim of work package 4 of the SafetyNet project is to draft good practice recommendations, applicable to all phases of data gathering and input, database management, data use and dissemination. These recommendations are to ensure the quality of public European road accident data. The work package proposed to develop procedures for evaluating the “independence” of public European road accident databases and to 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. The following steps led to a path slightly different from what was foreseen. This paper takes the results of the work package 4 (SafetyNet, 2005, 2006, 2006b, 2007) as a starting point for a somewhat sociological approach to some of the issues the work package has dealt with so far.

2 WHY ARE ACCIDENTS INVESTIGATED?

All accidents¹, and road accidents are no exception to the rule, can be investigated from three different perspectives. All are legitimate and reply to certain social demands.

2.1 Three “pure” perspectives for accident investigation

Firstly, under the rule of law, the judicial enquiry has a natural priority over other types of investigations. Accidents are investigated in order to determine whether the accident resulted from unlawful actions or otherwise involved illegal aspects, and whether somebody can be held responsible for what has happened. The outcome of the process then consists of punishing the guilty party and thus bringing relief to the victims. Typically, a judicial enquiry asks two types of questions: What happened? Who is responsible? (Cf. (a) in Figure 1.)

Secondly, safety oriented investigations aim at understanding the general phenomenon of a road accident and ultimately to enhance safety of the categories of persons who are, in one way or another, involved in road accidents. These investigations do not seek to take a stand on guilt, but rather try to find causes and underlying contributing factors to the accident, and finally to make safety recommendations liable to suppress the danger or at least to diminish the existing risks. Typically, the purpose of safety investigations is to provide answers to two questions: What happened? Why did it happen? (Cf. (b) in Figure 1.)

Thirdly, investigations that have their origin in human interest, propose to inform the public of all aspects of an accident judged relevant or interesting by the investigator. Rather than having one or two main questions to answer, such journalistic investigations typically give a global description, albeit not complete or thorough on all points, of what happened and when, who was involved, why and how did the accident happen. (Cf. (c) in Figure 1.)

The “pure” types of investigation, identified so far, constitute very few problems. An accident that has no safety implications and no human interest aspects which would justify an investigation from those perspectives is naturally left to the judicial process. A basic, routine accident with no elements of illegality, hardly presents any aspects that would make it attention-grabbing from a human interest perspective. Finally a spectacular accident with no legal or safety implications would very quickly be abandoned to the exclusive curiosity of investigators for human interest purposes.

¹ The discussion on what truly constitutes an accident and what does not—we can stop at a minimal definition of an accident as an “act of God”—is voluntarily left out of the scope of this paper. Should we embark in this direction, it would immediately become quite clear that some of the example-categories defined in the subsection 2.2 would most probably not qualify for “accidents”. However, this does not mean that they are not sometimes investigated as though they were true accidents, by the existing accident investigation boards.

However, accidents are rarely, if ever, interesting from only one perspective and it is at the edges, where two or all three perspectives meet, that things become complicated.

2.2 Four “complex” types of accidents

If we look at the edges, we can identify accidents that combine such characteristics that the necessary requirements for opening an investigation from two or all three perspectives are met. Let us now focus more precisely on the domain of transport accidents.

On the border between legal perspective and safety perspective, one can find for instance fatal road accidents. Their investigation falls quite naturally within the mission of police forces. In some countries fatal road accidents are also investigated for safety reasons. It may well be that other types of road accidents, not necessarily fatal, are also investigated for safety reasons, because there is a national accident investigation scheme in force. A sample, or in some cases all accidents, of a certain type—for instance injury accidents, accidents involving certain types of road users or certain types of infrastructure etc.—are therefore investigated from both judicial and safety perspectives. (Cf. *(d)* in Figure 1.)

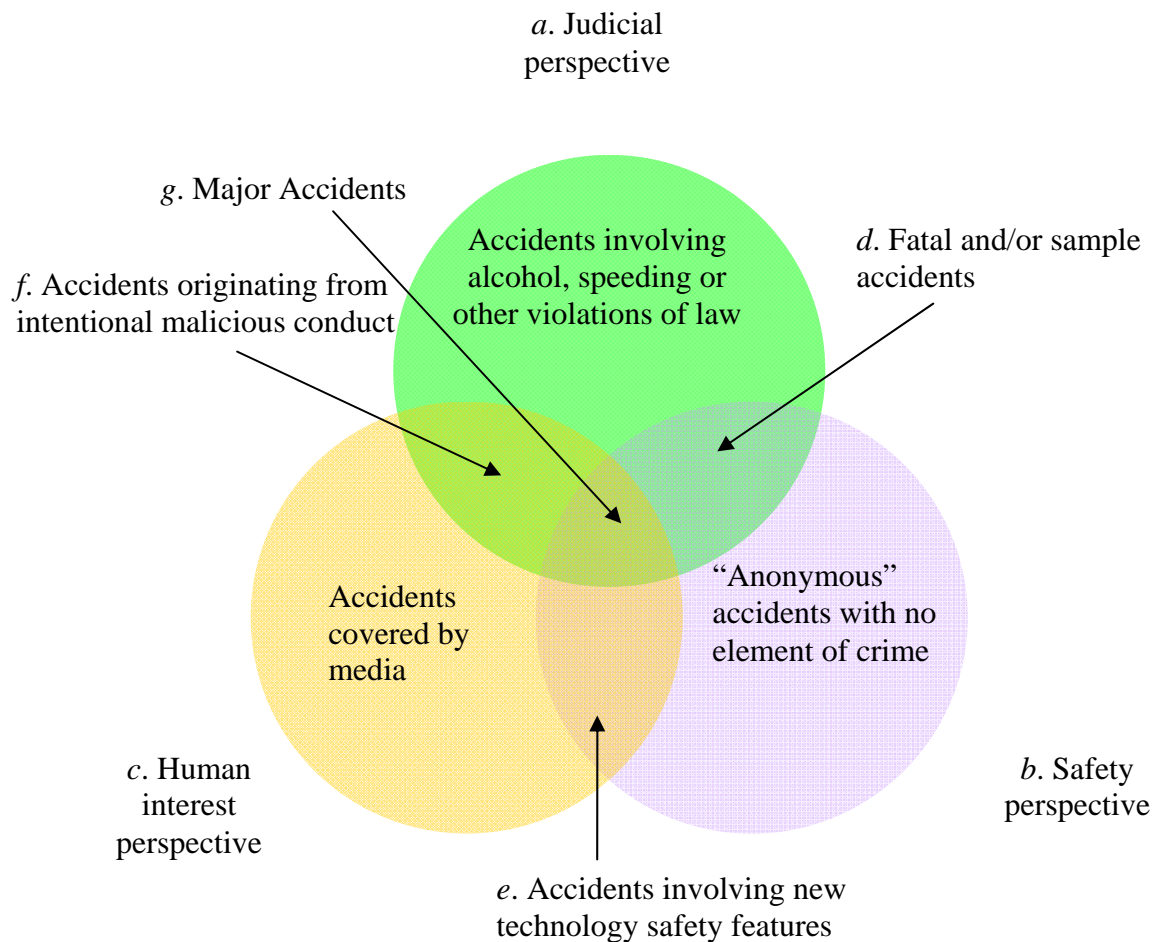


Figure 1: “Pure” and “complex” types of accident.

(d), *(e)* and *(f)* are examples and do not pretend to cover all real or imaginable accident cases that fit these “complex” types of accident. The shaded areas are not intended to represent the number of accidents that occur or are investigated in each category.

Some accidents can be interesting both for human interest and for safety reasons. Accidents involving new technologies often qualify for this type. (Cf. *(e)* in Figure 1.)

The complex category at the intersection between legal and human interest perspectives undoubtedly contains (alongside accidents that result unintentionally from intended illegal behaviour) events that could be characterised as “accidents” only with some difficulty. As the focus of this paper falls outside this particular category of accidents, we shall not discuss the issue in further detail. (Cf. (f) in Figure 1.)

The fourth category, which is interesting from all three perspectives, is that of major accidents. A major accident is an accident that has to be considered as particularly serious because of the number of killed or injured victims, or because of the extent of damage done to the environment or property. (Cf. (g) in Figure 1.)

Figure 1 above summarises the 3 “pure” perspectives for accident investigation and the 4 “complex” categories of accidents for which the investigation motives come from two or three different perspectives.

It is in the “pure” safety perspective and at the edges of transport accident investigation from a safety perspective that our attention shall lay from this point on.

2.3 Where does the specificity of safety oriented accident investigations lay?

Following the International Organization for Standardization (ISO) definition, SafetyNet (2006b) characterises an “in-depth investigation” as an “accident investigation conducted by an investigator with specialized knowledge”. This definition has been the source of an intense debate among the work package partners. There seems to be some slack in it, which allows considering that even a standard police investigation into a road accident qualifies as an in-depth accident investigation¹.

This is of course a major difficulty for anyone working in road accident investigation 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”.

We can therefore say that we are interested in multidisciplinary, safety oriented road accident investigation. One can clearly see, however, that there is a variety of approaches inside this category of multidisciplinary, safety oriented accident investigation practices. This variety comes quite directly from the interaction of various perspectives for a particular accident *and from the heterogeneous investigation motives that coexist inside the “pure” safety perspective.*

2.4 Structure of the paper

It is probably in major accident investigations that these heterogeneous motives can be identified most clearly. In any case, it is with regard to those investigations that the question of “independence” was first formulated in a relatively clear manner. Also, we will start by looking at major accident investigations. This will allow us to define what independence means in the context of accident investigation for safety purposes. We will then move on to what could be called routine accident investigation and, subsequently, define the concept of transparency. Next, we will turn our regard towards accident investigation practices that fall between major and routine accident investigations in an attempt to determine whether it is independence or transparency that this middle category of accident investigations need most—or even a mixture of the two. Finally we will formulate some further critique towards the everyday use of the term “in-depth”, pointing out a further source of confusion.

¹ Determining the conditions under which a journalistic investigation would qualify as an in-depth investigation is of course left to the specialists of that field.

3 MAJOR ACCIDENT INVESTIGATIONS AND INDEPENDENCE

Major accident investigations are conducted in order to determine accident causes and contributing factors. What makes these accident investigation practices particular is the conjunction of high levels of interest from all perspectives in the results of one single accident investigation. Nerb, Spada and Lay (2001) point out that the entertainment value of an accident depends on the importance of its consequences in terms of human, environmental or material loss. From a safety point of view, major accidents must be investigated because such investigations are essential for establishing a relationship based on trust between the public and the entire transport system (Giddens, 1990). Aviation, maritime, rail or pipeline transport accidents automatically qualify as major accidents. In road transport coach accidents or accidents involving the transport of dangerous materials, for instance, are treated as major accidents in many countries.

While manufacturing and transport industries have a clear interest in making transport safer in a *general* manner, there are sometimes direct commercial interests at stake in some *specific* accident cases (Sarsfield, Stanley, Lebow, Etedgui and Henning, 2000). In major accidents all sorts of conflicting interests could well try to influence the results of an investigation. Two obvious sources of influence can be identified. The first is the regulating authority or authorities and the second is the financially interested parties¹.

3.1 Structural independence

In the first case the investigating body must be separate from the regulatory body or bodies. If it was not separate, this would put it in a position where it must investigate an accident that might have been caused or made worse by incomplete or faulty regulation, for which it would itself be responsible. Let us call this separation structural independence.

Structural independence means that the body in charge of the investigation must not have regulatory tasks and that it must be permanent. Indeed, if it was not permanent there would be no memory of past events. Each accident, however similar to a preceding one, would be a totally new. The safety recommendations that would be formulated after an accident investigation, by an *ad hoc* committee, could easily be ignored and forgotten as there would be no one with the task to ensure that the recommendations have a real impact.

Then, the investigating body needs investigators. These investigators must have a clearly defined status. Their rights must be stated by the law.

Finally, the accident investigation must be separate from any judicial enquiry. There can and should be some cooperation, because an accident is always undividable. However, this cooperation must take place in a framework that recognises that the aim of the accident investigation for safety purposes is not to establish liabilities; it is to establish causes.

3.2 Financial independence

In the second case the investigating body must be separate from any financially interested parties. The investigating body must have an autonomous and preferably as stable as possible budget for functioning and carrying out its investigations. It must not depend on external financing for any particular investigation—whatever the source of such financing might be.

In general it must not have financial or other relationships, with any commercial or similar vested interests. These requirements apply, of course, also to the investigators.

¹ This remark, directly applicable to major accidents investigations, can be extended to all accident investigations from safety perspective. It may well be that while the investigation activities are in general conducted for safety purposes, in some specific accident cases commercial interests interfere with the safety motives.

3.3 Functional independence

Finally we can identify a third aspect of independence, which we shall call the “functional independence”. In addition to its independence in terms of structures and finances, the investigating body must be able to accomplish the mission it serves in transport safety.

The investigation body must have a legal obligation to investigate accidents of a certain severity—major accidents—and the liberty to investigate any other accident or series of accidents or incidents, whose investigation could result in the formulation of safety recommendations.

The investigators in charge of an accident investigation determine themselves the scope and the methods of investigation. They must have access to all the necessary data—including the evidence for a judicial enquiry. They must also be able to interview/speak with the witnesses.

There must be a possibility for other, foreign investigation bodies to participate, assist or observe the investigation.

Finally the conclusions and the investigation report must be public and not subject to any external scrutiny before they are published.

3.4 Where can such independent accident investigation bodies be found?

Accident investigation bodies not submitted to outside control within the framework of their missions are most frequent in civil aviation. There are also some independent accident investigation bodies in maritime and rail transport, but none (at least to our best knowledge) in road transport.

In Europe, there is a legal framework for the investigation of aviation, maritime and rail transport accidents. The European Directives that regulate independent accident investigations in those sectors have been progressively drafted since the beginning of the 1990s. The National legislations, implementing the European framework, have been or are in the process of being acted. The European framework leaves open the question of the actual organisation of the investigation activities. Some countries like Germany, France, Italy and the UK have opted for separate investigation bodies for most transport modes. Some others, The Netherlands, Finland and Sweden for instance have opted for a single multi-modal investigation board.

Outside Europe, and without any claim of exhaustiveness, uni- or multimodal investigation boards exist for instance in Canada, Japan, Taiwan and in the USA.

4 ROUTINE ROAD ACCIDENT INVESTIGATIONS AND TRANSPARENCY

With the exception of major road accidents, the independent accident investigation boards usually do not investigate road traffic accidents. This can easily be understood, suffice to take a look at the sheer numbers of annual road accidents and compare them with the numbers of accidents in the other transport modes. Table 1 illustrates the gap between the annual number of road fatalities on one hand and that of the other transport modes on the other.

Transport mode	Road	Rail	Air
Fatalities (EU-15)	32 637	75	*
Fatalities (EU-25)	43 472	105	6

Table 1: Road, rail and air transport accident fatalities in EU in 2004.

Source: European Commission, 2006.
* Figure not available.
Figures for maritime transport are not available for EU-15/25.

4.1 The source of routine accident data

The investigation of routine road accidents is a mission that comes within the remit of police forces. This is true not only for the potential judicial aspects of the accident, but also for the safety aspects. When the task of investigating accidents for judicial inquiries and for safety purposes is within 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. If there was no element of crime in a road accident, would the police still investigate in order to determine all the contributing factors whatever these might be, perhaps road layout, road surface, fatigue caused by working conditions, and so forth?

For the reason shown above—the number of road accidents and road fatalities—the idea of establishing an independent road accident investigation body, whose mission, according to the requirement of functional independence, would be to investigate all fatal road accidents and who could investigate any other accident or series of accidents or incidents, is unrealistic.

4.2 The concept of transparency

Routine road accident data comes from police forces, which is sometimes problematic but, on the other hand, establishing an independent road accident investigation body is not feasible. It is clear that the two different missions that police forces have, can at times be conflicting. In those cases, it is the safety investigation that will be put aside and the judicial investigation will have the priority. While one can then point out the regular shortages in terms of incomplete or missing data of the resulting police reports, we must immediately acknowledge the advantage, for road safety purposes, of having data available that is as close to exhaustive as feasible.

Is there something else, then, that can be done to enhance the routine accident investigation processes and the subsequent data? More and better training associated with an adequate initial qualification, guidelines that set out how and what to look at, clearly established practices... All this, to be sure, and even more can be done in order to enhance the quality of routine road safety investigations and investigation data. However, before we start thinking about ways to enhance anything, we must already be able to assess the existing quality.

This is where the concept of transparency becomes significant. Let us define transparency as the availability of such relevant information on the accident investigation and its results, which allow its quality to be assessed. Transparent accident investigation data is first-order data that is accompanied by second-order data on the conditions under which the accident investigation data was generated, allowing a quality assessment to be made. The second-order data covers all aspects from the conditions under which investigations are carried out to the characteristics of data management processes. A quality assessment of investigation data is possible if information is available on what the investigating entity does and how the entity does it. In other words, transparency means that anyone who wishes to evaluate the quality of a data can access the necessary information for doing that.

5 SAFETY ORIENTED ROAD ACCIDENT INVESTIGATIONS

We have now dealt with the two extremes of road accident types: major accidents and routine accidents. Any major accident and any subsequent investigation results might have devastating consequences to the transporting company, the manufacturer or the regulator. Therefore the investigating body must be independent of any vested interests, so that it can be impartial in its investigation. At routine accident level the harmful consequences to the above-mentioned interests are limited. The consistency of the data collected on a multitude of everyday accidents determines the quality of the available statistical data. The important issue in this case is not the independence of investigating body; it is the transparency of the data, which allows a quality assessment to be made.

In short, we have seen that “independence” is essential for major accident investigations and that “transparency” is a more adequate requirement for routine accident investigations. Of course, road accident investigations are not limited to these two extremes; the bulk of safety oriented road accident investigating is done in the middle zone between the two, where a sample of road accidents is investigated. For ease of discussion this type of in-depth or multidisciplinary investigation will be referred to as safety oriented investigation hereafter.

5.1 Do safety oriented investigations need independence or transparency?

The above considerations on major and routine accident investigation give us some indication on what kind of configuration would be suitable for safety oriented investigations.

Major accident investigations always result in a single accident report while routine accident investigation data is available and used in the form of macroscopical statistical data. Data resulting from safety oriented accident investigation has a similar statistical structure. Its reliability therefore lays heavily on transparency. The fact that there is, in practice, nothing or very little at stake, when it comes to the results of any *single* road accident investigation process whose aim is to feed data to a *database*, takes away a lot, if not all, of the pressure that in case of a single accident investigation exerts on the investigating entity. The need for independence is therefore lesser than in a major accident investigation.

It could then seem that independence is very important to major accident investigation and has only a little importance for safety oriented road accident investigation. However, if this was the case, then accident investigators others than police investigators or judicial experts would have no legal status and no particular rights—starting with the right to access the accident scene—guaranteeing that they can accomplish their work. This would of course seriously undermine the quality of accident investigation data they produce. Also, the issue of conflicting regulatory, commercial or other interests, not on the single accident level but on database level, remains unresolved.

It is then probably safe to say that independence is not as crucial for safety oriented accident investigation as it is for major accident investigations, but that there still are issues that make at least some aspects of independence of the investigating body quite important. On the other hand, the transparency of safety oriented accident investigation emerges as a “non negotiable” characteristic.

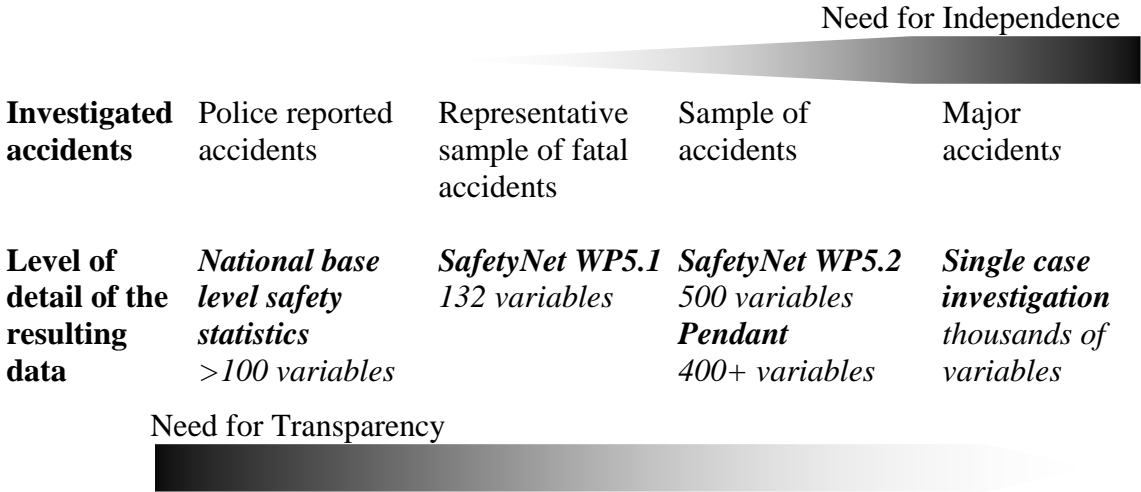


Figure 2: Variety of road accident investigation schemes and their need for Independence or Transparency

We have established that safety oriented accident investigation needs first and foremost transparency and to a lesser extent some independence. What we have not established, is whether there is a need for the data resulting from such investigations. A thorough argumentation would of course be too long to develop, and would go far beyond the scope of this paper. However a brief clarification is necessary for what will follow.

In the road transport sector, efficient action plans cannot be based on single accident investigations. What is needed then is analytical power offered by statistical data. On the other hand, basic level data often comes short of what would be needed in terms of data variables for more complex analysis, for example accident or injury causation.

The intermediate level accident databases are the result of primarily safety oriented, multidisciplinary accident investigations. These investigations differ from major, single accident investigation in that they are always conducted with the aim to feed individual accident data into a database. The data is structured and managed so that the end product of an investigation is not an accident report, but statistical data. Such investigations are usually not conducted by the police forces or by any existing independent accident investigation body.

5.2 Examples of actual safety oriented accident investigation

On a pan-European scale there are only a few databases that result from safety oriented accident investigations. Some European projects, co-financed by the EU Commission, have developed such databases. For instance, the Pendant project developed an injury causation database with over 400 data variables. The SafetyNet project is currently developing two databases; one with 132 general data variables and the second on accident causation with some 500 data variables. The partnership for these three European databases comprises of universities, public research bodies or other bodies with a mission to advance road safety.

In the USA, safety oriented investigations are conducted by the National Highway Traffic Safety Administration (NHTSA) which has also a regulatory mission. In Northern Europe, there are some national road accident investigation schemes that are worthy of mentioning. The Swedish Road Administration investigates all fatal accidents, but like NHTSA it is not fully independent in the sense that we have defined previously.

The Finnish fatal accident investigation scheme probably comes closest to independence. The Finnish system comprises a Road Accident investigation Delegation (RAID), which is a supervising body with representatives from different Ministries, Administrations and the Finnish Motor Insurers Centre. Other bodies, such as Universities, the Finnish Accident Investigation Board and Highway Police may also be represented in RAID. RAID appoints the 21 Road Accident Investigation Teams (RAIT) whose investigation areas cover the whole of Finland. Actual road accident investigation work is organised by the Traffic Safety Committee of Insurance Companies (VALT). The system is financed from the motor vehicle insurance premiums.

5.3 Databases with a lot of accidents vs. databases with a lot of variables

If we now look again at Figure 2, we can see that there is a level missing in it.

This missing level is between intermediate and detailed level databases—such as those that are being developed in SafetyNet work package 5—and the single case accident investigations. This level also utilises statistical data. In order to distinguish this level from intermediate and detailed level databases (which levels constitute the original focus for the SafetyNet work package 4), it is often called “in-depth” level. Let us summarise the characteristics of accident investigation data on each of the previously identified levels, before we go any further.

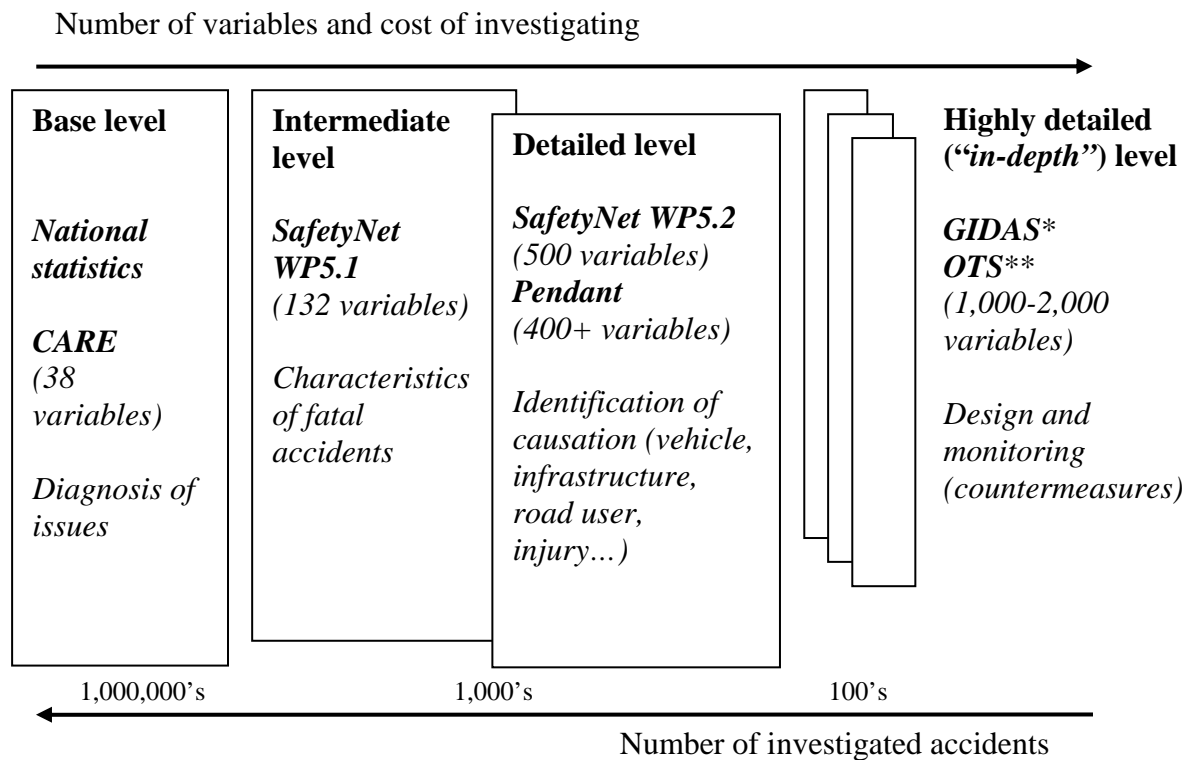


Figure 3: Number of investigated accidents, number of variables and cost of investigation

*German In-Depth Accident Study

** On-The-Spot accident research in United Kingdom

In Europe, police investigations feed into the national statistics and then to the Community database on Accidents on the Roads in Europe (CARE). The CARE database has a number of data variables limited to 38. CARE data can be considered as basic level information for road safety purposes and it serves well in road safety issue diagnosis. Intermediate and detailed level accident databases result from safety oriented, multidisciplinary accident investigations. These investigations are not single accident investigations and do not result in single accident reports. They feed individual accident data into a database. The data is structured and managed in order to exploit statistical data. The number of variables varies from a hundred to several hundred. Major accident investigations always result in an accident report containing a very large quantity of details on a single accident.

The “in-depth” level undoubtedly makes use of statistics and it is, in most ways, quite similar to intermediate or detailed level. What has been said, for those levels, about the need for transparency, holds for “in-depth” level too. However, given the small number of cases the need for independence becomes more important.

Like in Figure 3, it is easy to range these different levels of databases on two opposite scales going from high number of accidents, small quantity of details and limited costs of investigation to small number of accidents, high quantity of details and high costs.

This classification is common and does not constitute any problem in itself—regardless of where precisely, in terms of quantity of details, the limits between intermediate, detailed or “in-depth” databases are drawn. It is the wide use of the terms “in-depth data” or “in-depth databases” that creates a problem. The intermediate and detailed level accident databases that SafetyNet work package 5 is developing are based on safety oriented, multidisciplinary in-depth accident investigations. In that sense these databases are “in-depth” and the data in them is also “in-depth”.

5.4 What do the notions of “in-depth data” and “in-depth database” mean?

There is a source of possible confusion here. We have already seen that “in-depth investigation” is a concept defined by ISO and it applies to accident investigation practice. An in-depth accident investigation is conducted by an investigator with some sort of specialised knowledge. “In-depth database”, however, is completely different thing. “In-depth” in this context does not apply to any qualifications, knowledge or skills of the investigators, but to the quantity of data variables available on an accident in the end product of a process that begins with accident investigations; a database. We had previously realised that “an in-depth accident investigation” is not necessarily safety oriented. We must now acknowledge that “a safety oriented multidisciplinary accident investigation” does not necessarily produce what is perhaps improperly called “in-depth data”, which most probably means, when it is used conversationally, highly or very highly detailed data.

For the sake of consistency it should then be agreed that “in-depth data” simply means data resulting from “in-depth accident investigation” and some other formulation needs to be found for speaking about the characteristics of the end product. The simplest solution could well be the use of “highly detailed data” and “highly detailed level database” when referring to data and databases that have a higher quantity of details on a smaller number of accidents.

6 DEVELOPING RECOMMENDATIONS FOR TRANSPARENT AND INDEPENDENT ROAD ACCIDENT INVESTIGATION

SafetyNet work package 4 is currently drafting recommendations for transparent and independent accident investigation of road accidents. The SafetyNet Deliverable 4.3 *Draft Recommendations for Transparent and Independent Accident Investigation—A Working Paper* (SafetyNet, 2006b) was discussed with a wide audience in a workshop organised in Brussels, March 27th 2007.

6.1 Draft Recommendations

The draft recommendations are structured in four clusters. The first cluster comprises the institutional issues, relating to all our previous work on different aspects of independence of the investigating body—its independence in terms of structure, of financing and in terms of functioning—its autonomy over what to investigate and how to investigate; the different fields of expertise the investigating body mobilises.

The second cluster is on operational issues, related to the actual investigation processes. How the accident scene investigations are organised, starting from the moment the accident is notified. When and how does the investigation team receive the information about the accident? How do they proceed on the accident scene? What is their legal status? What is the status of their investigation?

The third cluster covers data issues that fall under two major headings: data protection and data management. What is the status of the data gathered with regard to the judicial enquiry? How should the data be managed so that it is available for safety purposes?

Finally the fourth cluster includes reports, dissemination and countermeasures. While investigation activities clearly should be organised at national level, some wider European coordination should exist and stakeholders should be involved in the implementation of countermeasures at all relevant levels.

6.2 Feedback from the workshop

While important modifications will undoubtedly be brought to the draft recommendations, it is worthwhile to indicate that out of 38 draft recommendations 35 were approved by at least a majority of 2/3 of the attendees, the three remaining received the approval of 58% to 63% of

the attendees. Unsurprisingly, the issues that need the most rethinking are quite fundamental. The first concerns the status of the investigating body: what is the right level of independence for it? A second issue concerns data protection: can and should all safety data be shielded from judicial uses? Thirdly, privacy issues raised concern: it might not be possible or even desirable to store all data that are collected. Fourthly, the remit of the body was questioned: should the remit be limited to investigation or should the body also make safety recommendations which it would address to the appropriate stakeholders; should the body have a role to play in the design and implementation of countermeasures?

As a result of the workshop, a decision was made to draft separate recommendations or sets of recommendations for the investigation of different types of accidents—routine accident investigation, major accident or special case investigation, and safety oriented, multidisciplinary investigation for a sample of accidents. The issues mentioned above could well receive several, differing responses depending precisely on the type of accident that is considered.

The SafetyNet work package 4 deliverables and other relevant information can be found at the European Road Safety Observatory web site at http://www.erso.eu/safetynet/content/wp_4_independent_accident_investigation.htm.

7 ACKNOWLEDGEMENTS

This paper draws on work performed collectively by the current and former partners of SafetyNet work package 4: Pierluigi Aloia (DITS), Charlotte Brace (VSRC), Lindsay Cant (INRETS), Ydo de Vries (TNO), Helen Fagerlind (CHALMERS), Gabriele Giustiniani (DITS), Boudewijn Hoogvelt (TNO), Michael Jänsch (MUH), Cees Klootwijk (TNO), Arantxa Lallana (DITS), Dimitri Margaritis (TNO), Andrew Morris (VSRC), Dietmar Otte (MUH), Marianne Page (VSRC), Kalle Parkkari (VALT), Luca Persia (DITS), Lucy Rackliff (VSRC), Steven Reed (VSRC) and Davide Usami (DITS).

However, due to the specific perspective adopted in the paper, it does not necessarily reflect the opinion of all SafetyNet work package 4 partners.

REFERENCES

- European Commission (2006). *Energy and transport in figures 2006*. Brussels.
- Giddens, A. (1990). *The Consequences of Modernity*. Polity Press.
- International Organization for Standardization, *ISO 12353-1:2002 Road Vehicles - Traffic accident analyses, Part 1: Vocabulary*
- Nerb, J., Spada H., and Lay, K. (2001). Environmental Risk in the media: Modeling the reactions of the audience. *Research in social problems and public policy*, Vol. 9, pp. 57-85.
- SafetyNet, 2005. *Deliverable D4.1. Bibliographical Analysis*.
- SafetyNet, 2006a. *Deliverable D4.2. Database Transparency*.
- SafetyNet, 2006b. *Deliverable D4.3. Draft Recommendations for Transparent and Independent Accident Investigation—A Working Paper*.
- SafetyNet, 2007. *Deliverable D4.4. Workshop Report*.
- Sarsfield, L., Stanley, W., Lebow, C., Ettetdgui, E. and Henning, G. (2000). *Safety in the Skies: Personnel and Parties in NTSB Aviation Accident Investigations - Master Volume*. Rand Institute for Civil Justice, MR-1122/1-ICJ.