

The need for a European Union approach to accident investigations

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Abstract

On 11 June 2003, the Commission decided to create a high-level “Group of Experts to advise the Commission on a strategy for dealing with accidents in the transport sector”. The task of the Group is to, *inter alia*, assist the Commission on the formulation of common European methodological elements for independent technical accident investigations.

This article describes the recent developments in the legal framework related to accident investigations in the European Union and presents the keystone elements which should form the basis of an EU approach to accident investigations. It will also explain the rationale behind the setting up the above-mentioned Group of Experts.

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1. Introduction

The end of the 20th century witnessed several major accidents in various transport sectors: the Erika and Prestige sinking accidents, the Mont-Blanc tunnel fire, and several train derailments in Germany and in the United Kingdom as well as the Concorde crash in Paris to name but a few examples. These have spurred recent initiatives aimed at strengthening safety measures at the EU level, both by way of establishing new European bodies dedicated to safety (agencies)¹ and through new legislative measures.²

Intrinsically related to the improvement of safety, there is also a growing impetus at the EU level to extend and improve legislation related to independent technical accident

investigations, which are geared towards revealing the root causes of accidents.

This paper will first look at the present EU legislative framework related to accident investigations and recent developments. Then, it will present the general principles that should apply to accident investigations and explain the importance for an EU approach on accident investigations based on the principle of independence. Finally, the paper will describe the rationale behind the recent Commission decision to set up a ‘group of experts to advise the Commission on a strategy for dealing with accident investigations in the transport sector’ in June 2003. The opinions expressed in this paper are those of its author and do not commit the European Commission.

2. State of play in the Union: legislation across the modes of transport and recent developments

Although the investigation of accidents is still primarily a responsibility of the Member States, measures to improve transport safety clearly fall under the responsibility of the European Union according to Article 71(1)(c) of the EC Treaty. In this context, because of their direct link to the improvement of safety, a number of measures in the field of accident investigations have been adopted already and other Commission proposals are at different stages of preparation in the different modes of transport.

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¹ The European Aviation Safety Agency and the European Maritime Safety Agency were set up in 2003 and the European Rail Safety and Interoperability Agency will be set up in very near future. The creation of a European Observatory on Road Safety is also envisaged in the medium-term.

² Recent measures related to transport safety include, *inter alia*, the regulation on common rules in the field of civil aviation and establishing a European Aviation Safety Agency; a proposal for a directive on the regulation of safety and investigation of accidents and incidents on the Community’s railways; the directive on minimum safety requirements for European tunnels; and the directive on safety rules and standards for ships.

It is in the field of aviation that the most advanced investigation process can be found at the European level. It is also in this sector that the European Union involvement in the process is the most important. As a consequence of the application of Council Directive 94/56/EC³ all Member States have now an independent accident investigation body, of which the following are exclusively devoted to aviation accidents: Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Portugal, Spain and the United Kingdom. Finland, Luxembourg, The Netherlands and Sweden have chosen to go directly for a multi-modal transport accident investigation system (The Netherlands and Sweden not limiting themselves to transport only).

Council Directive 94/56/EC established for the first time at EU level, the fundamental principles governing the investigation of civil aviation accidents and incidents. It introduced a number of basic principles related to accident investigations:

- investigations are mandatory for accidents and serious incidents;
- their sole objective is prevention;
- there is a status to co-ordinate this technical investigation with the judicial authorities to enable both parties to investigate in parallel, giving a certain number of rights of access to the necessary elements;
- the investigations are carried out by an independent civil aviation body;
- this body should be given sufficient resources to carry out its tasks;
- assistance between Member States is encouraged and delegation of the investigation to another Member State is possible;
- reports containing relevant safety recommendations must be produced;
- a system of follow-up of the safety recommendations must be taken into account.

In addition to the existing directive on investigation of accidents and serious incidents, the recently adopted Directive 2003/42/EC on occurrence reporting in civil aviation⁴ deals in a more proactive way with all kinds of civil aviation incidents. The directive requires Member States to set up mandatory reporting systems for occurrences which endanger or which, if not corrected, would endanger an aircraft, its occupants or any other person. It also envisages the establishment of a common database of relevant information submitted by the Member States.

In the field of railway accidents, so far, investigations have been conducted by national bodies (of different kinds). In many Member States the national railway operators or in-

frastructure managers bear the responsibility for such investigations, while in other Member States the responsibility is transferred to a regulatory body or to a body specially designed for accident investigations, in some cases even to a multi-modal one. Normally, in Member States where a separate body does not exist, special ad hoc inquiries are established to investigate the most serious multiple fatality accidents.

The first railway package, adopted in December 2000, stipulated through Directive 2001/12⁵ that it is a responsibility of Member States to ensure that investigations are systematically carried out in the event of accidents. Such investigations must be carried out by bodies or undertakings that do not provide rail transport services themselves and are independent of bodies that do so. Still, it is possible for infrastructure managers or safety regulators to carry out the investigations.

In the second railway package, presented on 23 January 2002, the Commission proposed to take further steps towards an EU approach to accident investigation. The proposal for a Directive on the regulation of safety and investigation of accidents and incidents on the community's railways,⁶ part of the aforementioned package, lays down some basic principles for independent accident investigation:

- accidents above a certain threshold of seriousness and some other significant incidents shall be investigated with the purpose to prevent reoccurrence;
- for these investigations Member State must establish permanent independent bodies with sufficient resources;
- the accident investigation must be kept separate from the judicial inquiry and the investigation body must be granted access to all relevant evidence;
- the investigation shall be accomplished in an open and transparent way, allowing for all parties to be heard and for reports to be published;

The Directive also requires that 'Member States and their safety authorities shall take the necessary measures to ensure the safety recommendations issued by the investigating bodies are duly taken into consideration and, where appropriate, acted upon.'

A model for investigation reports is developed in an annex to the proposed directive ('Annex V: Principal content of accident and incident investigation report').

In a proposed regulation to establish a European Railway Safety and Interoperability Agency,⁷ provisions are made to further facilitate and coordinate the activities of the national investigation bodies, e.g. by creating European databases on accidents, investigation reports and safety recommendations.

³ Council Directive 94/56/EC of 21.11.1994 establishing the fundamental principles governing the investigation of civil aviation accidents and incidents, OJ L 319 of 12.12.1994, p. 14.

⁴ Directive 2003/42/EC of 13.06.2003 on occurrence reporting in civil aviation, OJ L 167 of 04.07.2003, p. 23.

⁵ Directive 2001/12/EC of the European Parliament and of the Council of 26.02.2001 amending Council Directive 91/440/EEC on the development of the Community's railways, OJ L 75 of 15.03.2001, p. 1.

⁶ COM (2002) 21 final of 23.01.2002.

⁷ Idem.

In maritime transport, the International Maritime Organisation (IMO) adopted in November 1997 a ‘Code for the conduct of the investigation of marine casualties and incidents.’ This code aims at ensuring appropriate, objective accident investigation as well as the participation of all the States with substantial interest in the investigation. This code of conduct is however of a non-mandatory nature.

As a first step towards general and mandatory use of this Code within the Community, the Directive on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high-speed passenger craft services⁸ imposed from 1 December 2000 onwards the use of this code for these categories of ships sailing on a regular service to European ports, thereby requiring Member States to conduct objective accident investigations on any such vessels and craft bound for or leaving Community ports.

In the aftermath of the Erika accident, further steps were taken: according to Directive 2002/59/EC adopted in June 2002,⁹ Member States, when conducting a marine casualty or incident investigation involving a ship referred to in the directive (ships of 300 gross tonnage and upwards), shall comply with the provisions of the IMO code for the investigation of marine casualties and incidents. Member States shall also cooperate in the investigation of marine casualties and incidents involving ships flying their flag.

Furthermore, on the basis of this experience, the Commission shall propose during 2004 a harmonised maritime accident investigation regime in Europe.

With regard to the road sector, the recently adopted Communication on ‘European Road Safety Action Programme’ identifies the priorities for achieving the objective of halving the number of road accident victims in the EU by 2010.

There are annually around 40,000 fatal accidents on the roads in the EU 15 (50,000 in EU 25). All accidents are reported by the police and loaded into national databases. Such data provides the material for basic statistics and those involving casualties in the Member States are copied to the Commission for analysis in the CARE database.¹⁰ However CARE does not provide information on accident¹¹ and injury¹² causation. The objective identified in the Communication is that the CARE database should be expanded to consider risk exposure variables, the causes and consequences of accidents.

⁸ Council Directive 1999/35/EC of 29.04.1999 on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high-speed passenger craft services, OJ L 138 of 01.06.1999, p. 1.

⁹ Directive 2002/59/EC of the European Parliament and of the Council of 27.06.2002 establishing a community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC, OJ L 208 of 05.08.2002, p. 10.

¹⁰ Council Decision 93/704/EC of 30.11.1993 on the creation of a community database on road accidents, OJ L 329 of 30.12.1993, p. 63.

¹¹ Accident causation allows analysis of how to avoid accidents (active safety).

¹² Injury causation allows analysis of how to diminish the consequences (severity) of accidents (passive safety).

The Communication also underlined the importance to build up a concept of ‘accidentology’ for the road sector and the need to develop ‘independent road accident investigations along the lines of the existing legislation in the civil aviation sector.’ It further states ‘that such investigations should be carried out at the national level on the basis of a European methodology.’

3. General principles applicable to accident investigations

In order to enable accident investigations to be carried out in the best conditions, they should apply the following general principles: independence, transparency, credibility and influence.

The first basic principle for accident investigation is ‘independence’. For an accident investigation to be independent there should be no room for conflict of interest. It must be independent from the national authorities responsible for the regulation of the transport modes and also from the transport industry (manufacturers and operators). Less obvious is the independence from the judicial authorities which often also need to investigate into accidents but with an entirely different perspective and, last but not least, from political interests because a major maritime, rail or aviation accident may have strong political repercussions. The importance of the independence principle will be further discussed below (Section 4).

The best guarantee of the independence of an accident investigation relates to the transparency of its work and the timely publication of relevant information, though, at the same time, taking into account the necessary level of confidentiality to protect individuals and the sources of information.

Another general principle for accident investigation is ‘credibility’. Credibility in a highly technical investigation will depend on the availability of all the necessary expertise. As technology changes rapidly, investigators will need close contact with and active support from both the industry and the regulatory authorities from which they must, at the same time, remain independent.

There is also a need to for accident investigations to benefit from a strong political support to ensure considerable authority and also to obtain the level of resources necessary to carry out investigations. Therefore, another general principle is influence: for technical investigation covering accidents which also fall under judicial inquiry, there is a need for sufficient status to ensure the right of access to the evidence necessary to carry out the investigation rapidly and efficiently. For example, there have been reported cases in different countries in which technical investigators have been denied access to aircraft flight recorders or other information.

Another aspect of the need to be influential is the fact that the conclusions of the investigation are usually translated

into safety recommendations addressed to national authorities, operators, manufacturers or other entities. The investigation body must enjoy enough power and credibility to ensure that its recommendations are taken into account.

The above-mentioned illustrates some of the complexities related to the carrying out of accident investigations. In this context, there is a strong need to address this issue at the European level to ensure that all the Member States of the European Union will apply the same basic principles in order to ultimately improve transport safety.

4. The importance of ‘independence’ in accident investigation

In the previous section, independence was identified as the first basic general principle for accident investigations.

Indeed, there is an emergent perception in Europe and in the US that accident investigations should be carried out independently. In its ‘White Paper on European transport policy for 2010: time to decide’,¹³ the Commission indicated that there is a growing need for independent technical investigations geared towards revealing the causes of accidents. Such investigations should:

- be aimed at establishing the root, real and technical causes of accidents;
- be conducted autonomously and impartially (requiring therefore the functional independence of the investigating body or entity);
- be separated from who is to blame (determination of liability and compensation for damages);
- be independent from the judicial authorities, insurance companies, industry, operators and regulators or any party whose interest could conflict with the task entrusted to the investigating body;
- enable the establishment of safety recommendations and follow-up actions.

Therefore, the EU approach to accident investigation is, *inter alia*, based on the general principle of independence: accident investigations and subsequent conclusions and recommendations should not be designed to apportion blame or liability. It is this notion that forms the keystone element of an EU approach to accident investigation.

5. An EU approach to accident investigation: establishment of a Group of Experts

With the integration and the opening of the transport markets, accidents and serious incidents often have an impact on European public opinion; hence, the growing perception of the need to develop harmonised measures to ensure that accident and incident investigations are conducted in

an independent way in order to reveal the true causes of accidents. Independent accident investigations are ‘every citizen’s right and society’s duty’ as concluded by Mr. Pieter van Vollenhoven, Chairman of the International Transport Safety Association (ITSA). In his paper with that title, he defends the need to for and usefulness of independent accident investigations into the causes of accidents and incidents.

Independent investigations also contribute to the improvement of safety: lessons can be drawn from them and therefore preventing the reoccurrence of similar accidents. By making results of investigations and safety recommendations known and available Europe-wide, there will be a greater transparency in terms of accident investigations.

Finally, an EU approach will allow for the development of a common framework and methodology—a set of common principles for accident investigations for each transport sector, the primary driving force being the transference of best practices of accident investigations in the different modes of transport and different Member States.

Therefore, in terms of added-value, an EU approach will:

- allow for the greater harmonisation of independent accident investigation methods used in the Member States. Accident investigations will continue to be conducted at the national level, but following a European methodology;
- ensure that the common methodology will be based on the best practices and adapted to new technical developments.

The White Paper on Transport Policy recommended the creation of ‘a group of independent experts within the commission, whose job would be to improve the existing legislation and adapt the (European) methodology, *inter alia*, to technical developments’. In this context, and bearing in mind the need to develop a common approach to accident investigations, the commission has decided to set up a group of experts to advise the Commission on a strategy dealing with accidents in the transport sector¹⁴ in June 2003.

The Group of Experts’ primary mission is to advise the Commission on the need to improve legislation in the field of independent accident investigations in the Member States and, where necessary, to propose new initiatives for all modes of transport (air, maritime, rail and road transports), including the transport of energy (oil and gas pipelines¹⁵). The Group shall be composed of 12 ad

¹⁴ Commission Decision 2003/425/EC of 11.06.2003 setting up a group of experts to advise the commission on a strategy for dealing with accidents in the transport sector, OJ L 144 of 12.06.2003, p. 10.

¹⁵ The inclusion of the oil and gas pipelines in the scope of the work of the group of experts is due to the need to examine ways and means to implement measures for the prevention of accident hazards arising from pipelines. Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances (Seveso II) imposes an obligation on member states to report to the commission on major accidents for fixed plants but excludes this obligation for pipelines. In addition, the 6th Environment Action Programme (2002–2012) has identified the need to develop further measures related to accident prevention in the pipelines sector.

¹³ COM (2001) 370 of 12.09.2001, p. 69.

personam members from across the sectors and be chaired by a representative of the Commission. It may also set up working groups devoted to each sector. The establishment of a 'methodological' working group is also envisaged in order to assist the commission on the formulation of common European methodological elements for independent technical accident investigations.

The Group of Experts will also be entrusted with the task of examining the current methods, frameworks and policies of technical accident investigations and, if appropriate, advise the Commission on the need to carry out benchmarking studies. The work of the Group of Experts is expected to take-off during the course of 2004.

6. Conclusion

To conclude, as explained above, in addition to extending (and improving) the existing legislation on accident investigations to other sectors, the Commission has identified in

parallel a need to develop in the long-term an EU approach to accident investigations, based on best practices from the different modes of transport and from different Member States. In addition, the establishment of a common methodology for accident investigations will provide for a greater synergy and efficiency for Member States when carrying out accident investigations and ultimately help to reduce the number of accidents in the European Union.

The recent Commission decision to create a group of experts composed of qualified individuals competent to consider matters relating to transport safety issues, and, in particular independent technical accident investigations will play a role in the advancement of EU policy strategy in this field. It shall advise the Commission on a strategy to deal with accidents in the transport sector, through, inter alia, the establishment of a common framework on accident investigations, which will ultimately contribute to the development of an important objective: a higher and more uniform level of transport safety protection for all European citizens.