



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 23.11.2005
SEC(2005) 1515

COMMISSION STAFF WORKING DOCUMENT

Annex to the:

Proposal for a Directive of the European Parliament and Council establishing the fundamental principles governing the investigation of accidents in the maritime transport sector

Extended Impact Assessment

{COM(2005) 590 final}

This document has been prepared by the Commission's services with the assistance of the European Maritime Safety Agency (EMSA) as a basis for comment and does not prejudice the final form of any decision to be taken by the Commission. It commits only the services involved in its preparation.

TABLE OF CONTENTS

- **Executive Summary**
- **Section 1: PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES**
- **Section 2: PROBLEM DEFINITION**
- **Section 3: OBJECTIVES**
- **Section 4: POLICY OPTIONS**
- **Section 5: ANALYSE OF IMPACTS**
- **Section 6: COMPARING THE OPTIONS**
- **Section 7: MONITORING RESULTS**

Annexes

Executive Summary

A technical investigation (also referred in the text as “safety investigation”) of a maritime accident stands for a process conducted for the purpose of preventing the occurrence of similar accidents in the future, which includes the gathering and analysis of information, the drawing of conclusions, including the identification of the circumstances and the determination of causes and contributing factors and, when appropriate, the making of safety recommendations.

Such investigations are not linked to compensation for damages or determination of liability, and are therefore separate from investigations conducted by the judicial authorities, insurance companies, industry, operators and regulators, or any other interested party.

The European common transport policy provides for this type of safety investigations for preventing accidents in the civil aviation (since 1994) and railways sectors (since 2004). A similar obligation of conducting safety investigations after accidents in the maritime transport sector does not exist in EU legislation.

The necessity for achieving rapid progress in respect of safety investigations after marine casualties has been recently highlighted by the difficulties found for conducting the investigation into the causes and circumstances of the loss of the oil tanker “*Prestige*”, near the coast of Galicia (Spain) in November 2002.

In the light of the comments and call for action for improving the safety at sea of both the European Parliament and Council, the Commission has examined four possible policy options for addressing the issue of safety investigations after accidents in the maritime transport sector. Those options are: (1) “No policy change”, (2) Promotion of voluntary compliance with international recommendations, (3) an initiative for amending the international maritime conventions and (4) a legislative proposal providing clear guidelines for the carrying out of investigations into accidents and incidents at sea.

The results of the expanded impact assessment carried out on those options lead to the conclusion that a legislative proposal in this field makes sense because only the introduction of clear, mandatory principles at the level of Community would address the current shortcomings of safety investigations in the maritime transport sector.

Such a proposal should be based on agreed international principles, in particular the recommendations contained in the Code of the International Maritime Organisation (IMO) for the investigation of marine casualties and incidents. The proposal should also take full account of the rights and obligations resulting for the EEA Member States, both as Flag and Coastal States, from the international conventions applicable in this field.

Moreover, the proposal should also take into account the tasks assigned by the European Parliament and Council to the European Maritime Safety Agency (EMSA) in the field of accident investigation and the support that the Agency can provide to the maritime administrations of the Member States and to the Commission.

Finally, it should be recalled that this document commits only the Commission’s services involved in its preparation; it has been prepared as a basis for comment and does not prejudge the final form of any decision to be taken by the Commission.

Section 1: Procedural issues and consultation of interested parties

Introduction

The Commission, in its “White Paper on European transport policy for 2010” (September 2001) had already stressed the importance of independent technical investigations geared towards revealing the causes of accidents and ways of improving safety standards. In accordance with the policy guidelines of the “White Paper”, a group of independent experts (see point 3 below) was established for examining those issues.

Following the environmental catastrophe originated by the oil tanker “Prestige”, the European Parliament set up a temporary committee on improving safety at sea (the “MARE” committee). That committee examined, among other key maritime safety issues, the question of safety investigations and arrived at the conclusion that, with a view to preventing further accidents and incidents, it is necessary that clear guidelines be drawn up within the EU for the carrying out of an independent investigation into accidents and incidents at sea (see section 2 below).

The preliminary work of the group of independent experts and the information resulting from the work of the MARE committee provided a first basis for examining the possible policy options in this field.

Consultation of Interested Parties

Subsequently, the Commission’s services launched a wide consultation procedure aimed at gathering reactions on the envisaged action and the different options. Two consecutive series of public hearings were conducted with, respectively, the representatives of the maritime Administrations of the EEA Member States and the main associations in the shipping sector¹, in May 2004 and February 2005. Further comments were received from the consulted parties all along the preparatory phase of the “3rd Maritime Safety package”, of which the proposal on accident investigation is part of.

Technical Expertise from the European Maritime Safety Agency

Regulation (EC) No 1406/2002 of the European Parliament and of the Council of 27 June 2002 requires the European Maritime Safety Agency (hereinafter referred to as “EMSA”) to support the Member States in activities concerning investigations related to serious maritime accidents, and in the carrying out of an analysis of existing accident investigation reports.

To fulfil those tasks, EMSA has created a specialised unit on marine accident investigation, whose contribution has been instrumental for conducting the impact assessment exercise. EMSA has also facilitated the required contacts at technical level. Thus, in February 2005, EMSA organised a workshop in Brussels, with the participation of high level experts from the investigation bodies of the Member States, IMO and other international organisations.

Furthermore, EMSA has carried out a survey on how marine casualty investigation is currently structured in the EU – 25 and EEA Member States. The survey examines in particular, the legal system, the administrative responsibilities and the organisational structures framing the investigations, the budgetary and human resources of the different bodies and entities carrying out marine casualty investigations in those Member States. This survey can be consulted in the web-site of EMSA².

Advice from the “Group of Independent Experts” on accident investigation

In the assessment of the issue, the Commission’s services have received also the support and the formal opinion of the Group of Independent Experts to advise the Commission on a strategy for dealing with accidents in the transport sector³.

The role of this group, created in June 2003 by Commission’s decision 2003/425/EC, is contribute to the advancement of Community policy in the field of independent accident investigations, alongside other appropriate consultation procedures. The Group advises the Commission on the need to improve existing legislation, and, where necessary, on the need to propose new initiatives for all modes of transport, including transport of energy (oil and gas pipelines).

It has 12 appointed members, out of 100 candidates from across Europe, qualified individuals competent to consider matters relating to transport safety issues, and is chaired by a representative of the Commission.

The formal opinion of this group of experts is attached as Annex I.

Section 2: Problem definition

Investigation of accidents in the maritime transport sector: the context

There will always be a risk that maritime accidents will happen, but preparing for such eventualities can mean the difference between lives lost and lives saved or a minor damage to the marine environment and a major environmental catastrophe.

Independent technical investigations are an important means to improve safety by identifying the causes of accidents and thereby preventing them from occurring. The lessons learnt from such investigations are instrumental for examining the adequacy of the regulatory environment and for examining ways of improving legislation.

An adequate mechanism for ensuring appropriate return of experience from accidents and incidents is of particular importance for the maritime transport sector where progress to improve the general level of safety has been often achieved only after the occurrence of maritime disasters⁴.

Indeed, it is commonly agreed by the wide international shipping community that proper analysis and reporting of the causes and circumstances of previous accidents and incidents could have prevented, or at least substantially reduced the risk of, such disasters.

In the aviation sector, where the expeditious and systematic holding of technical investigations is the rule, this principle has already been implemented to the fullest possible extent at international level. However, in sharp contrast with the aviation sector, in the maritime sector the principle is also recognised but is less systematically applied.

In the European Union, following the dramatic disasters of vessels carrying passengers (“*Herald of Free Enterprise*”, 1987, 93 lives lost at sea), (“*Scandinavian Star*”, 1990, 158 lives lost at sea) (“*Estonia*”, 1994, more than 800 lives lost at sea), (“*Express Samina*”, 2000, 82 lives lost at sea) and the long list of environmental catastrophes originated by the oil tankers (see table) have prompted calls⁵ for tighter controls on technical casualty investigations and closer co-operation between Member States. Maritime Administrations, the shipping sector as well as the representatives of the seafarers have referred in different occasions to the weaknesses of the current system.

Table 1: Lives lost at sea – Throughout the world, by type of ship

Type of ship	1996	1998	1999	2000	2001	2002	2003
Oil and oil products	10	7	7	11	26	2	5
Bulk dry cargo	50	111	3	20	65	5	
General cargo	172	158	257	107	118	82	130
Passenger / general cargo	0	0	0	0	0	0	11
Ro-ro cargo	1	2	0	0	43	2	7
Passenger/ ro-ro cargo	342	150	0	90	0	1119	15

Passenger	4	40	74	0	0	1	0
Other	131	98	98	144	54	62	29
Total	710	566	439	372	306	1273	197

Source: Lloyd's Register: World Casualty Statistics

Table 2: Selected major oil spills, Europe

Ship name	Year	Location	Oil lost (t)
Torrey Canyon	1967	Scilly Isles, UK	119 000
Jakob Maersk	1975	Porto, Portugal	88 000
Urquiola	1976	Galicia, Spain	100 000
Amoco Cadiz	1978	Brittany, France	223 000
Independenta	1979	Bosporus, Turkey	95 000
Irenes Serenade	1980	Navarino Bay, Greece	100 000
Haven	1991	Genoa, Italy	144 000
Aegean Sea	1992	Galicia, Spain	74 000
Braer	1993	Shetland Islands, UK	85 000
Sea Empress	1996	Milford Haven, UK	72 000
Erika	1999	Brittany, France	20 000
Prestige	2002	Galicia, Spain	63 000

Source: International Tanker Owners Pollution Federation, Ltd

Problems hampering safety investigations

The Group of independent experts on accident investigation has identified a number of serious and very serious problems that hamper, at various levels, the conduct of safety investigations and the mechanisms to ensure a valid return of experience.

In a summary way, four fundamental problems appear at the core level:

1. The lack of primary legislation which makes marine accident investigation for serious incidents, or where the environment is substantially damaged, mandatory. As a consequence, the reluctance of, even obstruction by, some flag states to co-operate fully.
2. The inability to secure the co-operation of many non European Union Flag State's whose vessels are transiting near the coasts of the Member States but outside territorial waters, and become involved in an accident. Very often access to the vessel and witnesses is denied. In many cases, no investigation is ever carried out.

3. The very different legal approaches in the EU Member States themselves: while some Member States have the appropriate legislation to ensure that full investigations are carried out and the means to do so, others do not. Some accidents are investigated with the sole aim of determining the causes so that measures can be put in place to prevent them happening again while others are pursued with the aim of determining liability or establishing the level of compensation for damage caused.

4. The wide differences in resources, methodological rigorousness and time-span for investigating and reporting marine casualties. In practice, investigation reports may be delayed may lack objectivity and independence, and when focussing on blame and liability, do little to prevent future accidents. More over, some investigations take an unrealistically long time to complete

National legislation, the divergent approaches and procedures of flag and coastal states and the problems linked to the co-operation of other substantially interested parties often do not facilitate effective co-operation. This situation happens in spite of well established provisions in the international conventions.

European Practice

In respect of the situation in the EU, the experts' opinion is as follows:

“The European Flag State record on marine accident investigation varies. Some comply with all international conventions and have organisations that are totally independent of the regulatory body and are manned by full time and qualified inspectors. They also maintain comprehensive data bases, carry out trend analysis and make their reports freely available.

Others do no more than report the basic facts. Investigations when undertaken are usually handled by officials or consultants who are answerable to the Regulatory regime and are not therefore, by any stretch of the imagination, independent. Such states have no full time trained investigators and are usually reluctant to publish any reports. They do not appear to carry out any trend analysis nor initiate studies into human factors. They rarely share their findings with other states, or put measures in place to prevent the same thing happening again.”

In this context, it is relevant to mention the resolution⁶ of the European Parliament of 2004, concerning the investigation into the sinking of the oil tanker “Prestige” (lost in 2002):

[The European Parliament] “notes with concern that, nearly a year and a half after the Prestige disaster, all the investigations into the causes and circumstances of the disaster have still not been completed or the findings published; notes that the findings of the investigation by the Prestige's flag state (the Bahamas), for example, are still awaited; urges that agreements be reached under the auspices of the IMO on the speedy and independent investigation of shipping disasters and that the IMO include this requirement in its audit scheme for maritime authorities”.

Current regulatory framework

International conventions

Article 2 of the United Nations Convention on the Law of the Sea 1982 (UNCLOS), establishes the right of coastal states to investigate the cause of any marine casualty occurring within their territorial seas (12 miles) which might pose a risk to life or to the environment, involve the coastal State's search and rescue authorities, or otherwise affect the coastal State.

Article 94, paragraph 7 of UNCLOS establishes the obligation of flag states to cause an inquiry in the following terms:

“Each State shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the marine environment. The flag State and the other State shall co-operate in the conduct of any inquiry held by that other State into any such marine casualty or incident of navigation.”

In addition to UNCLOS, the International Convention for the Safety of Life at Sea (SOLAS), the International Convention on Load Lines and the International Convention for the prevention of pollution from ships (MARPOL) contain certain provisions connected with accident investigation.

Code for the Investigation of Marine Casualties and Incidents

In November 1997, the IMO passed Resolution A.849 (20) in November 1997 to provide a Code for the Investigation of Marine Casualties and Incidents. By means of that resolution, the IMO “invites” all flag administrations to comply with their duty to investigate casualties as required by the international conventions.

The Code also aims to promote voluntary cooperation between flag and coastal states in the conduct of those investigations. However, it adopts, for instance, no position on which state should institute an investigation although it recognises that a number of states are "substantially interested". These states are 'recommended' to co-operate in the investigation and, by mutual consent, designate one as the "lead investigating state".

The IMO Code is not a legally binding instrument. The obligations of the flag State to properly oversee the operation of ships flying its flag and the rights of the coastal State to exercise oversight of safety and pollution control over its coastal waters have led to tensions between flag and coastal States.

Furthermore, eight years after its adoption it is evident that many flag states in the world have not complied. Other flag states, including EU Member States have chosen to be selective with which sections they will comply. Although infinitely better than having no Code at all, it falls short of what the air transport industry enjoys with Annex 13 to the ICAO Convention on International Civil Aviation.

Further to the Code, the IMO has encouraged co-operation and recognition of mutual interest on accident investigation through a number of resolutions, i.e. resolutions A.173 (ES.IV), A.322 (IX), A.440 (XI), A.442 (XI) and A.637 (16). These resolutions were amalgamated and

expanded by resolution A.849 (20) on 4 Feb 2000 to provide guidance and practical advice for the systematic investigation of human factors in marine casualties and incidents and to allow the development of effective analysis and preventive action.

European Community legislation

At Community level, Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system⁷ requires Member States to comply with the IMO Code for the Investigation of Marine Casualties and Incidents of ships falling under the scope of the Directive. The provisions of the Directive require also the Member States to ensure that the findings of the accident investigations are published as soon as possible after its conclusion.

Moreover, Council Directive 1999/35/EC of 29 April 1999⁸ on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high-speed passenger craft services foresees the conduct of accident investigations in casualties involving those types of vessels.

European Maritime Safety Agency

Article 2, paragraph (e) of Regulation (EC) N° 1406/2002 establishing a European Maritime Safety Agency⁹ establishes the following task for the Agency in the field of accident investigations:

“[The Agency] shall facilitate cooperation between the Member States and the Commission in the development, with due regard to the different legal systems in the Member States, of a common methodology for investigating maritime accidents according to agreed international principles, in the provision of the support of the Member States in activities concerning investigations related to serious maritime accidents, and in the carrying out of an analysis of existing accident investigation reports”

EEA Member States' current practice¹⁰

European Union Flag States are bound by national legislation on the methods and extent of marine accident investigations. In certain instances, independent investigations that do not result in some forms of censure, or to the publication of reports that can be made available to the public are difficult to achieve.

The European Flag State record on marine accident investigation varies. Some Member States comply with all international conventions and have organizations that are totally independent of the regulatory body and are manned by full time and qualified inspectors. They also maintain comprehensive data bases, carry out trend analysis and make their reports freely available.

Others do no more than report the basic facts. Investigations when undertaken are usually handled by officials or consultants who are answerable to the Regulatory regime and are not therefore, by any stretch of the imagination, independent. Such states have no full time trained investigators and are usually reluctant to publish any reports. They do not appear to carry out any trend analysis nor initiate studies into human factors. They rarely share their findings with other states, or put measures in place to prevent the same thing happening again.

Table 3: Data gaps in the maritime safety follow-up process (maritime casualty investigations)

Data category	Data sub-category	Percentage of missing data
Beginning of the emergency situation and initial measures	Manning of the bridge	81%
	Coordination of the initial measures	40%
	Initial measures	43%
	Organisation of emergency response teams	77%
	Involvement of pilots or VTS centres	93%
Emergency management	Manning of the bridge	96%
	Coordination of the initial measures	59%
	Decision making	93%
	Information gathering during the emergency	74%
	Problems during the emergency response actions	90%
Evacuation	Manning of the bridge	96%
	Coordination of the evacuation	14%
	Decision making	89%
	Problems during evacuation	81%
Fire detection and development	Fire source	0
	Fire detection	0
	Development	12%
	Initial fire fighting measures	0
Fire fighting	Involved crew	100%
	Accessibility to fire	18%
	Measures to fight the fire	12%
	Further measures to fight the fire	70%
	Times until commencing with actions	33%
	Results	6%
Fire fighting equipment	Fire fighting equipment involved	27%
	Fire fighting equipment condition	45%

Source: World Maritime University, Malmö – Dr. Ing. Schröder (2003)' presentation at the EMSA's workshop on maritime safety investigations in the EU (February 2005).

Situation in other transport modes in the EU

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.

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/EC¹¹ 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).

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 aviation¹² 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, the first railway package, adopted in December 2000, stipulated through Directive 2001/12¹³ that it is a responsibility of Member States to ensure that investigations are systematically carried out in the event of accidents. Subsequently, Directive 2004/48/EC¹⁴ on safety on the Community's railways laid down the basic principles for independent accident investigation. That Directive establishes, inter alia, that:

- 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”.

Rationale for action at Community level

According to Article 80(2) of the EC Treaty, the EU Member States may decide to pursue measures to improve maritime transport safety in the framework of the common transport policy.

The European Parliament, in its resolution on improving safety at sea in response to the Prestige accident, has considered

“it necessary, with a view to preventing further accidents and incidents, that clear guidelines be drawn up within the EU for the carrying out of an independent investigation into accidents and incidents at sea; considers that this should be the task of an independent investigative body at Member State level or, if appropriate, at European level”.

Indeed, the absence of such clear guidelines for investigating accidents in the maritime transport sectors can be considered as one of the most serious shortcomings on the EU Maritime Safety Policy. Many of the contributions received from the Maritime Administrations of the Member States and from the main associations in the shipping sector support the consideration of the European Parliament, stressing the necessity of unbiased, technical investigations on maritime accidents in the European Union.

The attainment of a high general level of safety in maritime transport in the European Union requires permanent cooperation between the Member States, a common approach to safety investigations and, overall, developing some common fundamental principles for the conduct of those investigations and the reporting of conclusions. Such requirements, which are essential for identifying ways of improving the existing common legislation in this field, can be only achieved at Community level by reason of the scale or the effects of the action.

In conclusion, the European Union has the right to act on the problem described above in accordance with the principle of subsidiarity as set out in Article 5 of the EC Treaty.

Section 3: Objectives

General objective

The general objective of the Commission in this field is to achieve a high level of safety in maritime transport, preventing the risk of future marine accidents by directing the EEA Member States to draw up national legislation to enable marine accident investigations to be carried out in accordance with the applicable provisions of the international maritime law.

The specific objectives of the action proposed by the Commission are:

- to ensure the systematic conduct of safety investigations on marine casualties and incidents according to internationally agreed principles;
- to separate the idea of a safety investigation from those investigations of a criminal, or quasi criminal nature, or proceedings aimed at establishing liability and blame.
- to ensure an appropriate system of return of experience at Community level
- to standardize the investigation methodology that ensures a systemic approach to investigations and minimum investigation and reporting quality criteria.

Furthermore, the Commission's proposal aims to define and establish a framework for the co-operation of the EEA Member States in the field of marine casualty investigation. This framework should take into account the international regulatory system, the long standing experience and know how of the investigation bodies that exist in some Member States and, where appropriate, the technical support of the European Maritime Safety Agency.

Key required results (operational objectives)

The following considerations describe the key required results:

Objective 1: Expeditious and systematic holding of safety investigation

As safety investigation should be systematically conducted, as soon as practicable, after the occurrence of every serious and very serious casualty (minimum requirement)

Objective 2: Technical investigations exclusively aimed to improve maritime safety

Technical investigation should be clearly differentiated from other types of parallel investigations conducted to determine responsibility or blame. This would require the establishment of an adequate legal status for the conduct of technical investigations on marine casualties in the context of the national legislations of the Member States (similar to the one that applies for the purposes of technical investigations in the air transport and railway sectors).

Objective 3: Conduct of safety investigations by impartial, professional safety investigators

Safety investigations should be conducted by competent, well trained investigators; those investigators should be supported by an administrative structure allowing them to carry out their work in an expeditious way, with all the required safeguards to ensure their impartiality.

Objective 4: Establishment of adequate safeguards for the conduct of safety investigations

At the very least, the following safeguards should apply:

Systematic reporting to the authorities in charge of safety investigation of incidents and accidents which could be the subject of an investigation;

Obligation of all the parties involved in an accident or incident to make all reasonable efforts to preserve evidence;

Preventing unnecessary disclosure of safety investigation records for purposes other than the safety investigation.

Objective 5: Effective cooperation among Member States

Member States should join efforts for the purposes of attaining a level of excellence in the conduct of safety investigation. The cooperative effort should allow the exchange of experiences, the diffusion of best practice and for the improvement of maritime safety as a whole. Such an effort should facilitate investigation of serious accident involving a substantial interest for two or more Member States.

Objective 6: Timely establishment of reports, conclusions and safety recommendations

Safety investigation should always lead to the drawing of conclusions, including the identification of the circumstances and the determination of causes and contributing factors and, when appropriate, the making of safety recommendations. Such conclusions and recommendations should be made public within a reasonable period of time.

Objective 7: Achievement of the above objectives within a reasonable time-scale

An adequate system of safety investigations on maritime transport accidents should be operational as soon as possible. The urgency is linked to the necessity to obtain a return of experience from previous accidents for preventing new maritime accidents, loss of life at sea and/or pollution of the marine environment.

Section 4: Policy options

Four possible policy options have been identified:

- (1) “No policy change” option
- (2) Promotion of a forum of cooperation among marine accidents investigating bodies in the Member States
- (3) Joint action of all the EEA Member States and of the Commission before the International Maritime Organisation for the purposes of amending the SOLAS convention
- (4) Proposal for a new Directive introducing into Community Law the principles governing the investigation of accidents in the maritime transport sector

It should be noted that policy options (3) and (4) are not necessarily incompatible.

4.1. “No policy change” option

The first option is to discard any action at the level of the Community in respect of marine casualty investigations. This option is taken as the point of reference (“baseline”) against which the other actions are evaluated in Chapter 5. The purpose is to highlight the impact that can be attributed to each policy option and, in a complementary manner, to throw light on the costs and benefits of not taking action.

4.2. Promotion of cooperation among investigating bodies in the EU

Certain EEA Member States have established, in the framework of their respective legal framework, competent permanent investigation bodies or entities which conduct or supervise marine casualty safety investigations.

Overall, the existing investigation bodies in the EEA Member States have a long standing experience and an excellent know how in the conduct of safety investigations. Those bodies are well placed to offer best practice advice to all the other maritime administrations in the EEA Member States with responsibilities to conduct accident investigations.

The policy option would consist on a Community proposal to foster, develop and sustain a co-operative relationship among national marine investigators for the purpose of improving and sharing of knowledge in a European forum. Such a proposal could be based on a “Memorandum of Understanding” to be subscribed by the interested parties (voluntary cooperation agreement approach).

The European Maritime Safety Agency could play an important role in the promotion of such co-operative relationship. It could also encourage through co-operation the development, recognition, implementation and improvement of related European Union and/or international instruments, where appropriate.

This option would follow the model of the “Maritime Accident Investigation International Forum” (MAIIF). This Forum¹⁵ is an international non-profit organisation dedicated to the

advancement of maritime safety and the prevention of marine pollution through the exchange of ideas, experiences and information acquired in marine accident investigation.

4.3. Proposal for an amendment of the relevant IMO instruments

The third option could be to propose a joint, unanimous position of all the EEA Member States and of the European Commission, for the purposes of promoting the amendment of the relevant instruments of the International Maritime Organisation. Such amendment would aim, inter alia, to (i) introduce a number of amendments in the Code for the Investigation of Marine Casualties and Incidents and (ii) make the Code mandatory for all the nations in the world parties to the Safety of Life at Sea Convention (SOLAS).

This option would require discussion at the European Council in view for obtaining a voluntary agreement of all the Member States to follow the position suggested by the Commission. Subsequently, it would require the support of a significant number of third countries at the discussions in the International Maritime Organisation.

The EEA Member States would eventually change their respective national systems as a consequence of the possible amendments to the international conventions.

It should be noted that Canada, Vanuatu and Australia have submitted a proposal to IMO following which the possible review of the IMO Code and the amendment of the SOLAS 1974 Convention to ensure its mandatory implementation has been placed on the work program of the Flag State Implementation Sub-Committee. The discussions at that Sub-Committee for developing amendments to the Code would conclude in 2007. A possible decision on whether the Code should be made mandatory could be adopted by the International Maritime Organisation in 2005¹⁶.

4.4. Proposal for a Directive on marine casualty investigations

The fourth option would aim at a proposal to the European Parliament and Council for the adoption, on the basis of Article 80(2) of the EC Treaty, of a new Directive introducing into Community Law the principles governing the technical investigation of accidents in the maritime transport sector.

This Directive would aim to complete the existing EU Maritime Safety Framework by ensuring that marine casualty investigations provide adequate and timely feed-back for the adoption of corrective action, at the appropriate level, for preventing loss of life at sea and pollution of the marine environment.

In full respect of the relevant international instruments in this field, the Directive would aim at

- Directing the Member States to draw up national legislation to enable technical marine accident investigations to be carried out in accordance with the requirements of the IMO Code¹⁷;
- Ensuring that all serious and very serious casualties would be subject to thorough investigations and reporting procedures, where appropriate carried out in a cooperative manner by the concerned Member States,
- Establishing some minimum quality assurance requirements for the above investigation and reporting procedures and

- Setting up a framework of cooperation in the Community to foster marine casualty investigation best practices and improve maritime safety and the prevention of pollution through the dissemination of information gained in the investigative process.

The main elements of the Directive could be summarised as follows:

- The obligation to investigate serious and very serious casualties involving ships flying the flag of the Member States, as well as any other casualty involving a substantial interest for the Member States. The investigative authorities should be in position to decide whether or not investigate other type of casualties, incidents or distress alerts taking account of the potential interest for preventing the occurrence of serious casualties.
- The obligation to inform, as soon as practicable, the investigative authority of the occurrence of sea events (casualties, incidents, some cases of serious distress alerts¹⁸), which may require the opening of a safety investigation.
- The establishment of autonomous investigative bodies in all the Member States. Such bodies – which already exist in some Member States - should be able to conduct technical investigations on an impartial manner, have the required know-how and dispose of the necessary resources.
- The establishment of a permanent cooperation framework enabling the investigative bodies in the Member States to cooperate among themselves and, where appropriate, with EMSA. Within such a cooperation framework, the investigative bodies should be able to agree the best means of cooperation and draw up common principles for follow-up and adaptation of technical and scientific progress.
- The establishment of safeguards for the conduct of safety investigations, namely the obligation to preserve evidence, prevent unnecessary disclosure of records of safety investigations and of foresee a system of penalties for breaching the national provisions adopted pursuant the Directive.
- The obligation to establish accident reports within a reasonable period of time and, where appropriate, to issue safety recommendations to the parties concerned. Conclusions and recommendations should be communicated to EMSA for the purposes of ensuring appropriate return of experience at Community level.

The Directive would also take account of the task already attributed by the European Parliament and Council to EMSA in the field of accident investigation (cf. development of a common methodology assuring the quality of the investigations and of the reporting requirements, technical assistance to be provided to the Member States and to the Commission and creation and maintenance of a European database on marine casualties)

Finally, it should be noted that all the above requirements would not prevent Member States from taking additional measures not covered by the Community instrument, so long as such measures do not violate or in any way adversely affect the realisation of the sole objective of safety investigations and analysis.

The type of legal act (a Directive) would leave Member States sufficient discretion in the implementation of the above aims.

Section 5: Analyse of Impacts

5.1. “No policy change” option

It is widely agreed by the EU shipping sector at large that the IMO Code for marine casualty investigations provides for a reasonable framework that should be systematically followed by the EEA Member States that, after all, are parties to the relevant IMO Conventions.

However, in spite of the fact that the IMO Code was first adopted in 1997, there is wide disparity among the Member States on the approach towards marine casualty investigations. Cooperation and information sharing procedures on the causes of circumstances of marine casualties is very limited.

The following statements highlight the roots of the problem:

Source : submission to the International Maritime Organisation¹⁹,

“Shipping is the most international and multi-national industry of all international business. Ships transfer registries and names with relative ease. Many ships never visit a port in the country whose flag they fly. The owning interests of a ship may have but the most tenuous links with the country of legislation. The management of the ship may, and often does, reside in a third country and one crew may be made up of a number of nationalities. In such an industrial organizational environment, the concept of any one State having the capacity and jurisdiction to fully investigate casualties and incidents is severely limited.”

Source: OECD – Maritime report²⁰

“Despite mounting criticism, based on growing evidence which shows a strong correlation between marine casualties and certain flags of registration, there are still a number of flag state administrations not adhering to minimum standards of supervision.

As a direct result, the relative importance of the annual inspection by flag state administrations has been downgraded in recent years as other interested parties - charterers and insurers included - who, in the past, had based their commercial considerations on the ability of flag states/registers, including certain low cost registers, to closely monitor operational standards of vessels under their jurisdiction, have, for commercial reasons, taken greater responsibility for checking ship-owner compliance with basic safety and marine pollution conventions.”

Source : Comments from the report of the Group of independent experts on safety investigations

(problems associated with the current statu quo – also referred in Section 2)

- *The reluctance of investigators to identify any possible shortcoming with their own regulatory regime.*
- *The instinctive reaction to a major incident to prosecute the masters of the vessels involved and to bring in new legislation before the causes have been established and sensible recommendations made. Such measures tend to address the symptoms or the direct cause and not the underlying or root causes.*
- *The lack of any primary legislation which guarantees the confidentiality of any evidence given to authorized inspectors.*

- *The inability of some flag states to ensure that data contained in a Voyage Data Recorder is used for accident Investigation purposes only.*
- *Flag state inspectors have no expertise in downloading or interpreting voyage data recorders”.*

Detailed information about the current situation in the EU is presented in the survey carried out by EMSA²¹. This survey examined how marine casualty investigation is presently structured in the EEA Member States. It focuses on the legal approach, the administrative responsibilities and the organisational structures framing the investigations as well as the human resources and their work status.

Overall, the “no policy change” option would contribute to perpetuate the current situation. None of the very serious problems in this field would be addressed. At the level of the EU, the wide differences in approach, the non-existence of a framework of cooperation for sharing information and best investigation practices and the lack of an adequate feed-back mechanism on lessons learnt from accident investigation for preventing future casualties, i.e. loss of life and marine environmental pollution, in benefit of all the EEA Member States and of the shipping community as a whole can be considered as one of the most serious shortcomings in the EU Maritime Safety Policy.

There are not clearly appreciable positive impacts arising from the “status quo” option.

Quantification of costs and benefits (“non action costs”)

This section provides information in an attempt to quantify, in monetary terms of the impacts that can be expected as a result of the “no policy change”, i.e. no action option. However, this attempt has to be examined taken into account a number of considerations.

- Approach

In the first place, it has been suggested that a comparison between, e.g. the list of the clean up cost of Milford Haven and Galicia and the envisaged mid- to long-term benefits in terms of the reduction in the number of accidents would contribute to better understand the importance of the proposal.

While figures on the sums expended for repairing environmental damages resulting from major maritime accidents can be easily obtained (see below), it is not possible to forecast a precise figure illustrating the number of accidents that could be avoided as a direct consequence of the implementation of the proposed action (conduct of casualty investigations).

The “long term of the reduction in the number of accidents” is the result of the whole set of existing measures in the field of maritime safety and of the efforts of the shipping sector to raise safety standards. It cannot be assumed that the conduct of technical investigation by the Member States of the EU would be, by itself alone, the decisive factor for preventing casualties in the maritime world.

Secondly, properly conducted safety investigations, i.e. the aim of the proposal, provide an input for improving maritime safety standards & regulations. However, the effective enforcement of those standards relies on other policy measures like the Flag State controls,

ship's inspections in ports or the surveys by classification societies. There are many other economic and technological factors that influence and determine the trend of accidents. Evolution of sea trade flows, growth of the fleet size, naval design progress and care of the human element are key factors affecting the overall level of shipping safety. A prediction on the possible evolution of those factors falls outside the objectives of the present study.

In any case, safety investigations and the return of experience that will be obtained thereof will contribute decisively to reduce the risk of accidents.

- Precautionary principle

To any extent, in the conduct of the examination of the potential impact of the proposed action in term of quantitative cost and benefits (in monetary value), account should be taken of the general principle that the protection of human life and that the risk of irreversible environmental damage takes precedence over economic considerations (precautionary principle)²².

- Quantitative indicators

With the necessary precautions (cf. above considerations), the following figures illustrate the dimension of the environmental costs linked to the catastrophes originated by the sinking of the oil tankers *Erika* and *Prestige*:

Source: Extracts from the report of the International Oil Pollution Compensation Funds²³

“On 12 December 1999 the Erika broke in two off the coast of Brittany, France, whilst carrying approximately 30 000 tonnes of heavy fuel oil. Some 19 800 tonnes were spilled. The sunken bow section contained 6 400 tonnes of cargo and the stern a further 4 700 tonnes.

Operations to pump the remaining oil to the surface were carried out during the period June - September 2000. Clean-up operations took place along some 400 kilometres of polluted coastline and over 250 000 tonnes of oily waste was collected from the shoreline

As at 01 February 2004, 6 892 claims for compensation had been submitted for a total of €206 million”.

Source: Extracts from the report of the International Oil Pollution Compensation Funds (IOPCF)

“[In November 2002], the Bahamas registered tanker Prestige, laden with 77 000 tonnes of heavy fuel oil, broke in two off the coast of Galicia (Spain) spilling an unknown but substantial quantity of its cargo. The bow and stern sections, which are lying in 3 800 metres of water, are estimated to contain 13 300 tonnes and 900 tonnes of oil respectively.

“A major offshore clean-up operation was carried out using vessels from Spain and nine other European countries. The oil from the Prestige affected the Atlantic coast from Vigo in Spain to Brest in France, as well as causing intermittent and light contamination on the French and English coasts of the English Channel as far as the Dover Strait. Approximately 1 900 km of shoreline has been affected in Spain and France. Around 138 000 tonnes of oily waste have been collected in Spain and some 18 300 tonnes in France.”

“It is estimated that the total losses caused by the incident in Spain, France and Portugal could be as high as €1 000 - 1 100 million, which is well in excess of the amount available under the 1992 Conventions.”

It should be noted that the actual cost of the environmental damages resulting from those accidents exceed largely the amounts claimed for compensation. The French authorities (Conseil économique et social de la région Pays de la Loire) has estimated that the total losses originated by the sinking of the oil tanker *Erika* amount to € 840 million. The WWF has estimated, in a study carried out in 1993, that the total losses resulting from the sinking of the *Prestige* may exceed € 5 billion (World Wild Life Fund, “The *Prestige*: One year on, a continuing disaster”, 2003, <http://www.wwf.org/>).

In terms of cost for the EU budget, the Community financial assistance provided to address the damage caused by the sinking of the *Prestige* amounts to more than €436 million, i.e.

- € 8.6 million from the EU Solidarity Fund,
- €170 million from the European Regional Development Fund, including a sum under the Interreg Initiative for the purpose of a permanent solution to neutralization of the wreck,
- €10.1 million from the European Social Fund,
- €91.1 million from the Cohesion Fund and
- up to €140 million from the Financial Instrument for Fisheries Guidance.

As in the case of the grounding of the oil tanker “*Exxon Valdez*” in Alaska in 1989²⁴, the cost of recovering the long-terms effects over the eco-system of the environmental catastrophes originated by the accidents of the *Erika* and *Prestige* are impossible to estimate.

- Loss of human life

Over the period 2000-2003, more than 2 140 losses (passengers and crew) were registered as a direct consequence of maritime accidents at world-wide level. The following table provides figures about the more recent catastrophes involving passenger’s ships in the EU:

Ship	Year, location	Loss of human life
<i>“Herald of Free Enterprise”</i>	1987, Zeebrugge	93
<i>“Scandinavian Star”</i>	1990, Baltic Sea	158
<i>“Estonia”</i>	1994, Baltic Sea	More than 800
<i>“Express Samina”</i>	2000, Paros Island	82

5.2. Promotion of voluntary cooperation – open method of coordination

This option would have a positive impact in so far all the EEA Member States decide to actively participate in the proposed coordination framework, adopt the required measures at national level, share information with other Member States, cooperate in joint investigations as required by the IMO Code, follow the recommendations agreed in the coordination mechanism, etc. EEA Member states would have full flexibility to put in practice or not the above measures.

However, the weakness of this option is linked precisely to the voluntary approach of the open method of coordination. Such an approach would not guarantee that appropriate measures are adopted in all the EEA Member States to guarantee a minimum number of basic principles, such as:

- The existence, in the context of the national legislations of the EEA Member States, of an adequate legal status for the conduct of technical investigations on marine casualties. This legal status is essential to clearly differentiate technical investigation from other types of parallel investigations conducted to determine responsibility or blame.
- The systematic compliance of the EEA Member States, both as Flag States and/or as Coastal States affected by a marine casualty, with the most basic premise of the IMO Code (i.e. that referring to the systematic investigation of all serious and very serious casualties).
- The principle of a competent permanent investigation body to investigate accidents, as it already applies in other transport sectors.
- The allocation of adequate competences and status to marine casualty investigators (immediate access to any relevant area or site of the casualty, access to survey records and relevant information, etc)
- The establishment of clear responsibilities for the conduct of investigations and for the cooperation required in casualties involving a substantial interest for two or more Member States and/or for Member States and non-EEA States.
- The obligation to produce a suitable report with the findings and conclusions of the investigators within a reasonable period of time.

In conclusion, this option would address some of the shortcomings inherent to the current situation in the field of marine casualty investigations, but it would not serve, by itself alone,

to ensure that the Member States establish in the framework of their respective internal legal systems, a legal status for the conduct of marine casualty safety investigations ensuring that such investigations comply with the requirements of the IMO Casualty Investigation Code.

5.3. Proposal for an amendment of the relevant IMO instruments

There is a wide consensus both at the level of the EEA Member States and at the level of all the States signatories of the relevant international conventions about the necessity to review the IMO Code for the Investigations of marine casualties and incidents. There is also a wide support to examine the possible means of making the Code mandatory for the maritime nations in the world.

That necessity is highlighted by the following considerations (cf. from the submission currently under examination at the International Maritime Organisation):

Source: IMO document²⁵

“Practical application of the Code has demonstrated that a redrafting and reformatting of the Code would make it more effective as a tool for the conduct of investigations focused on safety outcomes”.

“The purpose of safety investigations, to understand and address the factors that cause marine casualties and incidents, would be enhanced if the provisions of the Code were adopted as an annex to the International Convention for the Safety of Life at Sea (SOLAS), 1974. This would be consistent with the approach of the International Civil Aviation Organization (ICAO) in providing for the way in which accident investigations should be conducted in the aviation industry.

The aim of the original submission[]was to introduce to the international maritime community a system of investigation similar to that accepted by the ICAO in Annex 13 to the Convention on International Civil Aviation. This internationally uniform approach to aircraft accident and incident investigation has contributed in no small measure to an international airline industry with a very high standard of safety.

Practical application of the IMO Code, and constructive critical comment, suggest that it is less than ideal in layout and that some of the provisions are repetitious, or less than ideally drafted”.

The positive impact of this option would be to provide the full support of all the EEA Member States to the review of the IMO Code and to the amendment of the SOLAS convention to make it mandatory at international level. Indeed, under existing Community Legislation, Member States have already the obligation to apply the IMO Code.

However, the eventual adoption by the IMO of the required measures, which would constitute a significant step forward for improving the current situation, would not be enough to achieve the key required results at the level of the EEA Member States (cf. points 2 and 4.2 above).

Source: document from the World Maritime University

“97 bulk carrier were lost between 1970 and 1994 before in 1997 Chapter XII on additional safety measures for bulk carriers was included into the International Convention for the Safety of Life at Sea, 1974 (SOLAS). How many accidents have happened before HERALD OF FREE ENTERPRISE and SCANDINAVIAN STAR before in 1994 the International Safety Management (ISM) Code was created which underlines the responsibilities of the management for the safety of the ships?”

In that regard, it is to be stressed that the key required results go in the sense of implementing in Community Legislation an adequate framework allowing the Member States to comply with the requirements of the IMO Casualty Investigation. For the purposes of that implementation, the IMO Code would apply as amended by the relevant IMO bodies.

In fact, Community Legislation in the field of maritime safety provides for a mechanism to update that legislation in order to ensure, where appropriate, full consistency with the international instruments to which it makes reference²⁶.

In conclusion, in the Commission’s view, this option would not, by itself alone, allow to achieve the intended results. Even so, the work in progress at IMO to improvements the Code on marine casualty investigation is of extraordinary importance and Member States should actively contribute to that work. In other words, pursuing cooperation at international level, promoting the efforts of the EU Member States to ensure that the IMO Code is upgraded and that it becomes mandatory under the SOLAS convention is an underlying task that should be pursued. Achieving at international level results similar to the ones intended with the EU’s policy initiative would contribute to improve in a significant manner the current level of maritime safety at world-wide level.

5.4. Proposal for a Directive on marine casualty investigations

This option may lead to the quickest results with the EU providing for a legislative framework for effectively implementing the instruments existing at international level for ensuring the speedy and independent investigation of serious and very serious marine casualties. The Directive would establish the minimum requirements that all the EEA Member States should respect in that regard.

The views of the BIMCO²⁷ *(In reply to the stakeholders’ consultation)*

“The establishment of a system to ensure that casualty investigations are conducted properly; analysed objectively; and the conclusions dissipated in the maritime environment, may be the single-most significant contribution to enhancing and improving maritime safety since the ISM code. It may also be the step that enables the establishing of a blame free culture, which is a prerequisite for voluntary submission of accident and near miss information”.

“An accident and incident investigation procedure similar to that applied by ICAO when investigating airline accidents would be a great advantage. The Convention on International Civil Aviation States:

5.12. The State [...] shall not make the following records available for purposes other than accident or incident investigation [...]

We believe a similar procedure is of paramount importance for the creation of a safety culture as opposed to a blame culture”.

The views of the European Transport Safety Committee (ETSC)²⁸

"Effective accident and incident investigation makes a positive, and long lasting, contribution to the improvement of transport safety. Binding EU legislation is needed urgently to ensure it is independent of the regulatory body, judiciary or operational regime in the rail and maritime sectors.

EU action is also needed to ensure accident investigation findings are made public; that a timely response is made to safety recommendations and that the lessons learned from accident investigations and the safety recommendations that follow are shared freely between Member States, through centralised European databases”.

Moreover, this option is consistent with the options retained by other third States in the world, like Canada, Australia, Japan or the United States which have adopted rules governing the conduct of technical investigations geared to the prevention of future casualties. The cooperation mechanism proposed in this policy option would be open to the participation of those States and/or their investigative bodies.

5.4.1. Who is affected?

Two categories of potentially affected players can be identified (non-exhaustive list):

Table 4: Parties potentially affected.

A)	THOSE DIRECTLY CONCERNED IN A CASUALTY
	<ul style="list-style-type: none">– Maritime Administrations of the Member States, including search and rescue authorities and authorities for the places of refuge.– Technical investigative bodies– Other flag and coastal States– Ship’s passengers and ship’s crew– Ship’s owner and/or managers– Pilots and other agents providing nautical-technical services– Marine equipment’ suppliers– Charterers and cargo interests– Surveyors (classification societies)– Insurers– Rescue and marine assistance companies
B)	THOSE INDIRECTLY CONCERNED WITH THE RESPONSIBILITY ON IMPROVING MARITIME SAFETY CONDITIONS
	<ul style="list-style-type: none">– Member States Governments– European Union (European Parliament and Council, European Commission, EMSA)– International organisations (IMO, HELCOM, Port State Control MoUs, etc)

5.4.2. Direct and Indirect impacts

Preliminary considerations

It should be noted that safety investigations would not prevent by themselves alone the occurrence of accidents. Those investigations and the return of experience that can be obtained thereof will contribute to reduce the likelihood of similar accidents in the future.

The direct and indirect impact of the proposed action should be measured in terms of corrective action, established as a result of appropriate technical investigation, to prevent as soon as possible the occurrence of future marine casualties. Such corrective action could provide –both to the industry and the whole society- huge potential savings derived for the avoidance of casualties, in particular those involving loss of life or environmental catastrophes. Moreover, the existence of an effective tool for objectively establishing the causes and circumstances of accidents would also ensure the appropriateness of regulatory measures adopted thereof.

Overall, such an effective tool for remedial action would contribute to the sustainable development objective by ensuring that the fitness and technical adequacy of the fleet of the EEA Member States and, ultimately, of all the ships, regardless of their flag, operating to and from EEA ports or transiting near the coasts of the EEA Member States.

Direct Impacts

In terms of main direct economic impact, the implementation of the measures envisaged in the Commission’s proposal would require a budgetary and organisational effort from the Administrations of the Member States. This impact is examined in detail in the following section.

It will be just mentioned here that the importance of the impact for the Administrations would vary from one Member State to another. Obviously, Member States with a large registered fleet or/and with coastal regions with heavy maritime traffic or/and otherwise interest in the shipping sector would be the most affected ones. However, to a great extent, those Member States

As of the likely direct impact to the industry, the measures required to achieve the aims of the proposal would be of no cost to the shipping industry. It is in industry’s interests that investigations are undertaken in a timely and thorough fashion. Furthermore, the proposal is not seen as an administrative burden for the industry as it would become a more effective and uniformly applied tool for accident investigation.

Indirect Impacts

Table 5: Economic, Environmental and Social Impacts

Economic Impacts
<u>Shipping industry:</u>
<ul style="list-style-type: none">• Negative: possible costs increases due to the introduction of corrective measures for preventing accidents (e.g., manning requirements, improved equipment or ship’s design specifications and/or specific survey’s measures)

- Positive: better vessel's design, maintenance and operational requirements; wider and quicker notification of potential marine industry risk factors; enhanced cooperation between the industry and the investigating authorities, legal certainty about the scope and purposes of safety investigations and ability to share safety information for preventing the risk of similar accidents in other ships. Improved image of the shipping sector as a safe and performing sector committed to the prevention of accidents (corporate social responsibility)

Maritime Administrations:

- Negative (for some Member States and for some third countries Flag's administrations): cost for building up an adequate investigative capacity. However, the obligation to investigate accidents is not a new one. Many Member States and Flag administrations in the world expend considerable resources for complying with the already long-standing investigation requirements.
- Positive: Better performance in the prevention of accidents and incidents, improved knowledge for surveying of accident-prone ships; enhanced cooperation with other Member States and with Third Countries, uniform approach to casualty investigation based on internationally agreed principles (IMO Code); understanding of underlying casual factors and better appreciation of the effectiveness of existing safety provisions, i.e. better links between causes of accidents and regulatory action.

Other economic impacts:

- Overall: Improved state of operation of the fleet serving the EU trades (and of the world-fleet as a whole)
- Better protection of commercial interests (shippers, insurers, ship finance, etc)
- A safety system adapted to the risks and requirement of the seaborne transport system of the 21st century
- Huge savings of financial compensations for loss of life and environmental damage

Environmental Impacts

- Effective system for preventing marine environment catastrophes happening again
- Effective system for preventing accidental spills

Social Impacts

- Better protection of passenger' rights (preventing loss of life in cruise-ships, ferry and ro-ro passenger ships)
- Better protection of seafarers (preventing loss of life of crews, clear establishment of responsibility in the event of accidents involving criminal prosecution). The masters and seafarers will be able to provide evidence without concern that the information will be subject to determining apportioning liability or attributing blame. They will have confidence that safety investigators are concerned only with the safety of crew and seafarers.

5.4.3. Assessment of administrative costs

As mentioned above, certain measures required by the proposal would require an effort from the Administrations of the EEA Members States, at least in the case of certain Member States²⁹. Those measures are:

- (1) The obligation of Member States to carry out a safety investigation after every serious or very serious casualty involving ship flying their flags;
- (2) The establishment of a permanent investigative body, the allocation of sufficient resources for ensuring that the investigative body can carry out its functions and the engagement of suitably qualified investigators, competent in matters related to casualties;
- (3) The establishment of a cooperation framework of investigative bodies in the EU Member States and

- (4) The provision of data and access to the European database for marine casualties managed by EMSA.

The other measures included in the Commission's proposal, i.e. the establishment of a legal status for safety investigations, the provisions for enabling cooperation between Member States and third countries, safety investigations' procedural safeguards and issuing of a accident reports and safety recommendations would have a very limited administrative cost for the Member States. The proposed cooperation mechanism and EMSA's technical support could represent a significant added value for each individual Member State and for the EEA as a whole.

1. Obligation of Member States to carry out a safety investigation

The directive would introduce into EC Law the obligation to carry out a safety investigation after serious and very serious marine casualties involving ships flying the flag of the EU Member States or otherwise involving a substantial interest for the Member States.

In the terms of the IMO Code, very serious casualty means a casualty to a ship which involves the total loss of the ship, loss of life or severe pollution. Serious casualty means a casualty which does not qualify as a very serious casualty and which involves an event rendering the ship unseaworthy and/or pollution of the marine environment and/or a breakdown necessitating towage or shore assistance.

In respect of the potential impact of this measure, it has to be noted that the obligation to fulfil the requirements of the IMO Code already exists in Community Law (cf. Article 11 of Directive 2002/59/EC³⁰ and Article 12 of Directive 1999/35/EC³¹). That means that all the EEA Member States should have already adopted all the necessary measures to adequately meet that obligation.

In practice, the vast majority of the EEA Member States currently seek to comply with the principles of the IMO Code (which are of discretionary nature). For these Member States, the impact of developing those principles and providing a standing frame for cooperation in the EU for conducting safety investigations should be minor or fully in line with their intentions and ongoing undertakings in the field of marine casualty investigation.

Table 6: Investigation structures & budgets in 2004 (EEA)

Marine casualty investigation structure	Number of EEA Member States	Number of permanently employed or appointed investigators	Corresponding annual budget (Euro)
Permanent and functionally separate investigation body or entity	11 Member States	18	3,300,000
		6	1,000,000
		6	650,000
		4	575,000
		0	290,000
Permanent and functionally integrated investigation system	15 Member States	4	520,000
No provision for marine casualty investigation	1 Member State	0	0

2. Establishment of a permanent investigative body

Member States would be required to ensure that safety investigations are conducted or supervised by an impartial, functionally independent, permanent and competent investigation body or entity.

A competent permanent investigation body or entity, operating in accordance with the provisions of the draft Directive, will be able to conduct thorough and impartial safety investigations and so improve maritime safety by preventing future casualties. Sufficient resources and common standards of those bodies or entities throughout the EU and EEA will facilitate cooperation and mutual assistance in safety investigations and research.

The structures in the EU and EEA are illustrated by the grouping and examples given for staffing and financial resource in Table 10.

At present, three casualty investigation regimes/structures co-exist in the Member States:

- No permanent body or entity and/or no provision for marine casualty investigation;
- Permanent body, functionally dependent of the maritime administration;
- Permanent body, functionally independent of the maritime administration³².

The minimum resources required by a Member State to address the obligation to establish impartial, permanent investigative bodies will depend on its maritime interests. For each Member State these are determined by the size and structure of its fleet, by its jurisdiction over sea areas where maritime activity occurs, and by the number of natural or legal persons of its nationality undertaking maritime activities. The number of staff and the volume of financial resources readily available for investigations must match the dimensions of these interests.

In Europe, a qualified investigator typically receives a salary or fee at least equivalent to that of a Port State Control Officer. Typical average overall operational costs (excluding salaries/fees and administration costs) incurred by European investigation authorities per investigation of a very serious or serious casualty conducted in 2004 totalled 16.325 €³³ (based on the calculation shown in Table 12).

Table 7: Typical operational investigation costs

Examples of particular Member States' total operational costs	Total operational costs (without staff & administration)	Number of considered investigations (2004)	Average total cost per investigation
	197.802 €	12	16.484 €
	856.800 €	37	23.157 €
	140.000 €	15	9.333 €
		Total	= 48.974 €
Typical average overall operational cost per investigation (2004)			= 16.325 €

N.B. - as investigation structures and the number and type of casualties vary significantly each year among the Member States and within different sea areas, EMSA has had to base the assessment on a number of

assumptions. The results of this approach indicate likely average impacts of the technical and operational targets, requirements and obligations of the proposed Directive. These average impact estimations will enable national administrations to estimate individual impacts given the specific conditions in each particular Member State.

As it is the case in the air transport sector, a competent permanent investigation body or entity, operating in accordance with the provisions of the Directive, will be able to conduct thorough and impartial safety investigations and so improve maritime safety by preventing future casualties. Sufficient resources and common standards of those bodies or entities throughout the EU and EEA will facilitate cooperation and mutual assistance in safety investigations and research.

To any extent, ensuring that safety investigations are conducted by an independent body does not necessarily imply higher costs than in a situation where investigations are conducted by an entity or body dependent of the maritime administration.

3. Establishment of a cooperation framework of investigative bodies

Member States and the Commission would be required to establish a permanent cooperation framework enabling their respective marine casualty safety investigation bodies to cooperate among themselves and with the Agency.

The IMO Code encourages all the States involved in an accident to cooperate in order to carry out safety investigations. Although ad-hoc cooperation agreements have been occasionally established between certain Member States, a structure enabling investigative bodies to discuss common problems (e.g. on methodological aspects), share relevant information and/or resources, promote best investigative and reporting practice and, in general, ensuring a high level of investigative and reporting capacity in the Community. EMSA is well placed to support the investigative body in the Member States to achieve such a level.

The requirement for a cooperation framework addressed the necessity of ensuring a permanent dialogue among the investigative bodies in the Member States and EMSA in matters of common interest. The modalities of the intended cooperation would be decided by the investigative bodies themselves with the technical support of EMSA.

As for the coordination costs, the establishment of the required framework should have a limited impact of the administrative costs of the investigative bodies. The potential benefit of the exchange of experience would appear, in particular, for those Member States where impartial investigative bodies do not exist.

4. European Marine casualty information platform (EMCIP)

The IMO currently requires casualty data to be reported to IMO in accordance with MSC/Circ.953. However, processing and availability of all useful casualty data by means of a central European database has been found necessary. That database, codenamed as the “European Marine Casualty Information Platform” (or EMCIP) is being developed by EMSA.

The proposed Directive would require the Member States to ensure the collection and the transfer to EMSA of the data required for that information platform. Most of the required data is however identical or very similar to the data required by the IMO and the tools to be used for populating the European database will be provided by EMSA free of charge to the Member States.

There would be no additional financial burden on Member States and some Member States with existing national databases will experience savings in operational and maintenance costs. Additional man hours might be required at national and European level, particularly in the initial phase of testing and populating the database.

EMSA's database will build on the current IMO structure for collating casualty data and facilitate a more focussed approach for casualty investigation and data collection in Europe while still enabling IMO reporting requirements to be met without duplication of effort. It will also enable the scope of existing electronic databases in the Member States to be accommodated in a single European database. This will relieve those Member States of the need to maintain or develop their own databases.

Table 8: Summary of likely impacts on MS' maritime administrations

Minor impact of transforming recognized standards.

To a large degree the proposed Directive will serve the uniform implementation of existing recommended international standards which EU law requires to be complied with by general reference. Therefore, only minor impacts should result for those Member States that already fully or partly apply these standards unilaterally.

Directive obligations envisaged in IMO Code

An obligation to investigate all very serious and serious casualties involving vessels under their national flag should not result in new impacts for Member States which already comply with the IMO Casualty Investigation Code as these investigations are already envisaged in the Code.

Key targets and main impacts

Most impacts will involve the public sector alone in the form of legislative action and administrative rearrangement of public investigation structures; the proposed Directive sets key targets of permanence, competence, impartiality and independence for these structures. Of the procedural targets of immediate casualty notification, obligatory investigations of certain types of casualties, their expediency and timely reporting, and the follow-up of resulting safety recommendations, only notification and recommendation follow-up will affect the shipping industry as stakeholders. Resource-related impacts for the shipping industry will therefore be of a minor nature; however, the industry will profit from thorough investigations, timely reports and recommendations according to uniform standards.

Minimum public resources

To ensure conformity with the proposed Directive, a minimum of financial and/or human resources for public marine casualty investigation will be required in every Member State with maritime interests.

Maritime interests determine sufficient resources

The minimum resources shall be sufficient to guarantee the necessary investigation capacity of a Member State in relation to its maritime interests. These are determined by the size and structure of its fleet, by its jurisdiction over sea areas where maritime activity occurs, and by the number of natural or legal persons of its nationality undertaking maritime activities.

Readiness capacity required

The minimum investigation capacity shall also be sufficient to respond immediately on being notified at any time of a casualty and to directly launch an investigation, including on-site deployment, if necessary.

In conclusion, the requirement to provide data for the purposes of the European Marine Casualty Information Platform should not represent an administrative burden for the Member States. In exchange, Member States will benefit from common taxonomy for casualty investigation and access to large amounts of data. The system would benefit the Community as a whole by enabling trend analyses to be carried out with the aim of identifying areas of

concern. It would provide a means for undertaking a risk-based approach to developing recommendations for improving marine safety and pollution prevention.

5.4.4. Potential obstacles to compliance

The following possible impediments have been identified

Table 9: Possible impediments.

- Existing legislation in some Member States that does not allow for the separation of safety investigations from criminal or other administrative investigations;
- Political (and public opinion) pressure for immediate punitive action, particularly if fatalities or pollution result;
- Technical investigation to prevent accidents relegated by judicial and administrative investigations;
- Maritime Administrations’ reluctance to the establishment of an independent investigative body for carrying out safety investigations;
- Availability of sufficient available resources, particularly human resources, with the right professional and investigative expertise (in particular in Member States with a large registered fleet)

Section 6: Comparing the options

The strengths and weaknesses of each of the four policy options identified above are examined in this section from the perspective of achievement of the key operational objectives referred to in Section 3.

The chosen approach is that of a benchmark comparison, in which the potential results for each option are presented in a summary way.

Table 10: Benchmarking of options

OPTION 1	OPTION 2	OPTION 3	OPTION 4
“NO POLICY CHANGE”	“PROMOTE VOLUNTARY COMPLIANCE”	“PROMOTE CHANGE INTERNATIONAL INSTRUMENTS”	“ESTABLISH FUNDAMENTAL PRINCIPLES IN EU LEGISLATION ”
OBJECTIVE: EXPEDITIOUS AND SYSTEMATIC HOLDING OF SAFETY INVESTIGATIONS			
Structures and minimum standards vary significantly in the Member States. This results in the MS having far from common and reliable minimum standards in marine casualty investigation.	Monitoring of MS' practices may induce some improvements in the current situation.	Even if some improvements are achieved (i.e. mandatory nature of the IMO Code), there is not mechanism ensuring effective compliance	This option guarantees the systematic conduct of investigations after accidents (mandatory requirement under EC maritime safety law)
OBJECTIVE: TECHNICAL INVESTIGATIONS EXCLUSIVELY AIMED TO IMPROVE MARITIME SAFETY			
Only a small group of Member States foresee, in their national legislation, the conduct of technical investigations.	This option would not result in a clear separation between technical investigations and judicial enquiries in all the MS.	This option would not result in a clear separation between technical investigations and judicial enquiries in all the MS.	National legislations would foresee an adequate legal status
OBJECTIVE: CONDUCT OF SAFETY INVESTIGATIONS BY IMPARTIAL, PROFESSIONAL SAFETY INVESTIGATORS			
Only a small group of Member States have investigative bodies with the necessary resources to conduct safety investigations	Increased awareness of the necessity of technical investigations may lead some Member States to build up some investigative capacity	Changes at international level may lead some Member States to change current situation.	The establishment of impartial investigative bodies would be required to all the EU coastal and flag States
OBJECTIVE: EFFECTIVE COOPERATION AMONG MEMBER STATES			
Effective cooperation is difficult due to wide differences of approach among MS. Litigation and judicial enquiries may represent an obstacle to technical cooperation	An open coordination structure could be envisaged. However, this structure may fail to ensure effective cooperation in cases of casualties involving substantial interests for two or more Member States.	Changes at international level would eventually lead to some kind of improved cooperation. However, tensions between coastal and flag states would continue to hamper effective cooperation in case of serious and very serious casualties	A permanent cooperation framework would be established. The duty of loyal cooperation between EU Member States (article X EC Treaty) would be fully implemented.
OBJECTIVE: ESTABLISHMENT OF SAFEGUARDS³⁴ FOR CONDUCTING SAFETY INVESTIGATIONS			
Only a reduce number of Member States provide for such safeguards	A voluntary approach would not ensure establishment of appropriate safeguards	This option would not necessarily ensure the establishment of the required	The required safeguards would apply.

		safeguards at national level.	
OBJECTIVE: ESTABLISHMENT OF REPORTS, CONCLUSIONS AND SAFETY RECOMMENDATIONS			
Many Member States do not regularly publish full reports of the investigations carried out.	A voluntary approach may entail some improvements in the current situation.	Enhanced international instruments may entail some improvement.	Reports would be established within a reasonable period. The EU Maritime Safety Policy would take full advantage.
OBJECTIVE: TIME SCHEDULE FOR ACHIEVING OBJECTIVES			
(not applicable)	Progress could be achieved after a long period of time (many years and – likely – new maritime catastrophes)	This option would require many years of negotiations at international level. The outcome would be uncertain.	Time required for the adoption by the Parliament and Council of a directive plus time for implementation in the Member States. (2-3 years horizon).
POSSIBLE FINANCIAL AND ADMINISTRATIVE BURDEN FALLING UPON THE COMMUNITY AND THE MS			
Cost of not leaning from past experience. Exposure to the risk of similar maritime catastrophes occurring again.	Very low cost for MS. Some cost for the EU budget (promotional action to be proposed).	Very low cost for MS.	For some Member States no cost or very low cost at all (all required elements are in place). For a significant number of Member States: cost of effective compliance with existing requirements. Costs of setting up and maintaining investigative capacity
POSSIBLE FINANCIAL AND ADMINISTRATIVE BURDEN FALLING UPON OPERATORS			
Cost of not leaning from past experience. Exposure to the risk of huge costs to be faced by the industry as a whole in the event of similar maritime catastrophes occurring again.	No cost.	No cost.	No cost.

Conclusions

In the view of the Commission's services, a proposal for EU action is justified because only the introduction of clear, mandatory principles at the level of the Community would address the current shortcomings in the field of technical investigations of maritime transport accidents.

Such a proposal is justified by the necessity to complete the EU Maritime Safety Framework with an instruments ensuring that serious and very serious casualties in the maritime transport sector are systematically investigated.

The aim is to ensure that lessons learnt from marine casualties serve to the purpose of improving such framework and prevent the occurrence of future casualties. The proposed legislation takes full account of the rights and obligations resulting for the EEA Member States - both as Flag and Coastal States – from the international conventions applicable in this field (UNCLOS and SOLAS in particular).

According to the proposal, safety investigations should be clearly differentiated from, and not barred or delayed in reasons of criminal or other parallel investigations held to determine responsibility or blame. This requirement is consistent with the requirements introduced in Community Law for safety investigations in the air transport and railways sectors.

Furthermore, the Directive establishes a framework of cooperation for the investigation bodies in the Member States. Such a framework should facilitate the conduct and reporting of investigations of accidents involving a substantial interest for two or more Member States.

Finally, the Directive takes full account of the tasks assigned to the European Maritime Safety Agency in the field of accident investigation and the support it can provide to the Member States and to the Commission.

The measures required to achieve the aims of the proposal, would be of no cost to the shipping industry. It is in industry's interests that investigations are undertaken in a timely and thorough fashion. Moreover, the practical implementation of the Directive would have a limited impact for the Administrations of a significant number of Member States, which already require under national law the systematic conduct of safety investigations of accidents in the transport sector.

To any extent, the proposal would not result in an administrative burden for the Administrations or for the industry as it aims to establish a more effective and uniformly applied tool for accident investigation.

Section 7: Monitoring results

The Commission will monitor the effective implementation by the Member States of the administrative provisions necessary to comply with the proposed Directive. Member States would be under the obligation to communicate to the Commission the text of those provisions and a correlation table between those provisions and the Directive.

On a more operational level, the European Maritime Safety Agency is well placed to monitor the fulfilment of the obligation of the Member States in respect of the conduct of marine casualty investigations covered by the scope of the directive, the reporting requirements, issues related to methodology or proposals for corrective actions, at the appropriate level.

The reports and surveys of the International Maritime Organisation regarding performance of the Administrations in fulfilling the requirements of the IMO Code would provide also key information to monitor achievement of the expected results.

	<p>Group of Experts to advise the Commission on a strategy to deal with accidents in the transport sector³⁵.</p> <p><i>Maritime Accident Investigations Working Group (MAIWG)</i></p>
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Opinion of the Group of Experts

on the Commission's draft proposal for a

Directive of the European Parliament and Council establishing the fundamental principles governing the investigation of accidents in the maritime transport sector.

Recommendations

- (1) The MAIWG welcomes the proposal for establishing clear guidelines within the EU for the carrying out of an independent technical investigation into accidents and incidents at sea for the specific purpose of determining the circumstances and causes with the aim of preventing accidents in the future.
- (2) The MAIWG stresses that while criminal prosecution has a part to play in the aftermath of certain marine casualties, priority should be given to carrying out technical investigations and the collection of evidence for that purpose. This will ensure that the causes can be determined and the appropriate measures introduced to prevent it happening again. Such priority should not, however, jeopardise or hamper criminal investigations when the circumstances demand.
- (3) The MAIWG considers that the proposed Directive should ensure that when Member States, both Flag and Coastal, are affected by a marine casualty, they should comply with both the IMO Casualty Investigation Code and applicable international conventions when carrying out an investigation.
- (4) The MAIWG endorses the proposal in the proposed Directive that technical investigations should be conducted by competent, well trained investigators. They should, furthermore be supported by an independent administrative structure that enables them to carry out their duties in an impartial and expeditious manner.
- (5) The MAIWG notes that there is a wide divergence of approach to the investigation of accidents and incidents at sea among EU Member States. While some already have fully independent accident investigation organisations, others do not. The Group recognises the difficulties of establishing the minimum quality criteria for the conduct of investigations, the content and recommendations of publicly available reports, the protection of evidence and the independence of the findings, but believes they should be established.

- (6) The MAIWG considers that the independent investigative bodies of Member States should fully co-operate in the development of excellence on technical investigations and, in particular, the development of a minimum criteria in reports and recommendations. The European Maritime Safety Agency (EMSA) is well placed to assist in this process.
- (7) The MAIWG reserves its opinion on the possible introduction, for the purposes of the draft Directive of a “common methodology for investigating marine casualties”, which is still to be developed. This matter should be examined by the Group of Experts in the light of the conclusions of the ad-hoc working group addressing methodological issues across transport modes.
- (8) The MAIWG recommends that the proposed Directive puts an obligation on Member States to produce an appropriate report with clearly stated findings and, where appropriate, recommendations, for all very serious accidents within a reasonable timescale. Under normal circumstances such reports should be produced within 12 months of the date of the incident. It should be a requirement that such reports are public ally available.
- (9) The MAIWG also recommends that investigating bodies may use their discretion in which accidents below the category of "very serious" are investigated. The reports of such investigations do not necessarily have to meet all the requirements of the OMO Code but the basic details must be reported to both the IMO and EMSA.

Areas of Concern

- The MAIWG recommends that careful consideration be given to the definition of "Independence." The responsible body for marine accident investigation within a Member State must be totally separate from the regulatory regime and must be adequately resourced. The Expert Group will continue to examine this requirement.
- The MAIWG notes that the proposed Directive has been extended to embrace "distress alerts regarding ships located in the search and rescue regions for which members are responsible." The Group very strongly recommends that this clause is removed from the directive. It is an additional burden that no state, even the best resourced, is in a position to comply with and some doubts exist as to the legality of such a requirement. The Working Group has, however, no objections to the inclusion of a provision to ensure that such accidents are reported to the Member State in whose SAR region the incident occurs.

In essence the thrust of the Group's recommendations remain:

- The importance we attach to independent investigating bodies.
- A member state's best interest lie with investigations that identify the causes of an accident rather than who is to blame or liable. We recognise that this view flies in the face of public opinion and political expediency but we feel very strongly indeed that this view is in the best interests of future safety at sea and cleaner seas.
- The complete endorsement of no blame, no apportionment of liability approach to casualty investigation.

- That evidence must be protected, especially witness evidence. Other evidence can be shared.
- That evidence given to an authorised technical investigating body cannot be used for any purpose other than the improvement of marine safety.
- That technical investigations should take priority over criminal investigations
- That flag/coastal states should co-operate
- That member states have discretion as to the extent of any investigation below very serious.
- That EMSA has a useful part to play but must not dictate how or what investigations should be conducted.
- That accident reports are made publicly available,
- That accident reports should be published within a reasonable timescale. (We recommend a target of 12 months)

End notes

- ¹ The following professional associations in the shipping sector were invited to participate in the consultation process: BIMCO, CESA, ECSA, EMPA, ESC, EBA, ESPO, ETA, ETF/ITF, IACS, ICS, INTERCARGO, INTERTANKO, OCIMF and P&Is International.
- ² <http://www.emsa.eu.int/>
- ³ The Commission's decision setting up this group and the list of the independent experts appointed have been published in the *Official Journal of the European Union* and are available in the Commission's website at: http://europa.eu.int/eur-lex/en/archive/2004/c_18020040713en.html.
- ⁴ Thus, it was the loss of the White Star liner Titanic in 1912 which gave the greatest impetus to the development of international rules governing safety of life at sea. After the disaster in which 1,503 people lost their lives, the United Kingdom called together maritime nations to a conference to draft a new International Convention for the Safety of Life at Sea - the 1914 SOLAS Convention.
- ⁵ See, in particular, the resolution adopted by the European Parliament having regard to the work of the "MARE" temporary committee and the conclusions of the European Council of Copenhagen.
- ⁶ European Parliament resolution on improving safety at sea (2003/2235(INI).
- ⁷ OJ L 208 , 5.8.2002, p. 10.
- ⁸ OJ L 138, 1.6.1999, p. 1.
- ⁹ OJ L 208, 5.8.2002.
- ¹⁰ This section should be read in conjunction with the survey carried out by the European Maritime Safety Agency on the current status of accident investigation practices in the EEA Member States (see EMSA's website).
- ¹¹ Council Directive 94/56/EC of 21 November 1994 establishing the fundamental principles governing the investigation of civil aviation accidents and incidents, OJ L 319 of 12.12.1994, p. 14.
- ¹² Directive 2003/42/EC of 13 June 2003 on occurrence reporting in civil aviation, OJ L 167, 4.7.2003.
- ¹³ Directive 2001/12/EC of the European Parliament and of the Council of 26 February 2001 amending Council Directive 91/440/EEC on the development of the Community's railways, OJ L 75, 15.3.2001.
- ¹⁴ OJ L 164, 30.4.2004.
- ¹⁵ More information about the MAIIF can be found at the following web-site: <http://www.maiif.net/index.htm>.
- ¹⁶ By the Maritime Safety Committee (80th session) and the Marine Environmental Protection Committee (53th session)
- ¹⁷ i.e. the Commission's proposal would ensure the mandatory implementation of the IMO Code in the EEA Member States.
- ¹⁸ E.g. cases of passenger ships, oil or chemical tankers in distress near the coasts of the Member State.
- ¹⁹ Extract from the submission to the IMO Maritime Safety Committee by Australia, Canada and Vanuatu, (document MSC 79/20/4) of 9 July 2004.
- ²⁰ Source OECD Report on the Competitive Advantages Obtained by Some Ship-owners as a Result of Non-Observance of Applicable International Rules and Standards.
- ²¹ «Marine Casualty Investigation in EU-25 and EEA Member States », a study by the European Maritime Safety Agency.
- ²² Recourse to the precautionary principle presupposes that potentially dangerous effects deriving from a phenomenon, i.e. a maritime accident entailing massive loss of human life (e.g. Estonia) or large oil spills (e.g. Exxon Valdez, Erika, Prestige) have been identified, and that scientific evaluation does not allow the risk to be determined with sufficient certainty – See Commission's Communication on the precautionary principle, COM (2000)1 of 2.2.2000.
- ²³ see <http://www.iopcfund-docs.org/prestige.htm>
- ²⁴ see <http://www.evostc.state.ak.us/facts/economic.html>
- ²⁵ Cf. MSC 79/20/4 and related documents referred to above.
- ²⁶ See, in particular, Directive 2002/84/EC of the European Parliament and of the Council of 5 November 2002 amending the Directives on maritime safety and the prevention of pollution from ships (Text with EEA relevance), OJ L 324 , 29.11.2002, p. 53.
- ²⁷ BIMCO (the Baltic Exchange) is the world's largest private shipping organisation. BIMCO's membership spans 123 countries and includes more than 2,550 companies. Owner members alone control 65% of the world merchant fleet.
- ²⁸ Statement by Sven-Erik Sigfridsson, Deputy Director of the Swedish Accident Investigation Board. A summary of recommendations from the ETSC reports *Transport accident and incident investigation in the*

EU and EU transport accident and incident databases: Current status and future needs is given below.

The Executive Summaries and reports are available on ETSC's website: www.etsc.be

29 See EMSA's survey (cf. footnote 21).

30 Article 11 of Directive 2002/59/EC of 27 June 2002 establishing a Community vessel traffic monitoring and information system: "Without prejudice to Article 12 of Directive 1999/35/EC, Member States shall comply with the provisions of the IMO Code for the investigation of marine casualties and incidents when conducting any marine casualty or incident investigation involving a ship referred to in this Directive. Member States shall cooperate in the investigation of marine casualties and incidents involving ships flying their flag".

31 Article 12 of Council Directive 1999/35/EC of 29 April 1999 on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high speed passenger craft services: "Member States shall define, in the framework of their respective internal legal systems, a legal status that will enable them and any other substantially interested Member State to participate, to cooperate in, or where provided for under the Code for the investigation of marine casualties, to conduct any marine casualty or incident investigation involving a ro-ro ferry or high-speed passenger craft."

32 i.e. functionally independent of, in particular, the national authorities responsible for seaworthiness, certification, inspection, manning, safe navigation, maintenance, sea traffic control, port state control, operation of seaports and, in general, of any other party whose interests could conflict with the task entrusted to it.

33 In view of the variable present work structures and activities of Member States in the field of marine casualty investigation, and the difference extent and depth of investigations, it is not possible to provide an average cost for investigating a very serious or serious casualty alone. Some Member States not only investigate very serious and serious casualties but also engage in various other activities such as administrative enquiries into less serious casualties, data analysis and the production of safety studies and other related information, all of which are reflected in their total operational costs.

The calculated figure of 16.325 € does not therefore reflect the average operational cost of conducting an investigation of a very serious or serious casualty alone. Instead, it represents the average total operational cost of the investigation authority per investigation of a very serious or serious casualty.

34 Safeguards such as: obligation to report all casualties, incidents and distress alerts, preservation of evidence or non unnecessary disclosure of investigation records.

35 The list of members appointed to the committees has been published in the *Official Journal of the European Union* and is available in the Commission's website at:
http://europa.eu.int/eur-lex/en/archive/2004/c_18020040713en.html