LIFE-SAVING CHAIN IN ASECAP

Key procedures to save lives
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1. Introduction

This document aims at providing a clear overview of all the actions that are taken subsequent to an accident, the so called ‘live-saving’ chain, to limit its consequences and restore the safest conditions on the road infrastructure. The information in the document was extracted from a survey launched within ASECAP in order to get a better understanding of the modus operandi on the different motorway networks directly managed by the ASECAP members. This document carefully describes the key operations/procedures that are activated by different stakeholders in case of an accident in order to save lives and avoid any related dangers to the people. These procedures are often a chain system where several actors (police, concessionaires, fire brigades, emergency services) are actively involved and share different responsibilities.

The ASECAP members who participated in this survey are:

I. AISCAT
II. APCAP
III. ASFA
IV. ASFINAG
V. AWSA
VI. DARS
VII. KAPSCH TS
VIII. HELLESTRON
IX. HUKA
X. SEOPAN
XI. SUND&BAELT
XII. TOLL COLLECT
2. National cases

2.1 AISCAT – Italy

In Italy, in case of an accident, the information comes from different sources:

- Road Police (by telephone communication or by radio). On this issue, it has to be highlighted that, in Italy, the Road Police is the only authority entitled and allowed to operate on the motorway network;
- Operators being on the road network for their ordinary control activities with patrols (again by telephone communication or by radio);
- Video cameras to monitor traffic;
- Advanced sensors to detect stopped vehicles (this is typical in the equipped road tunnels or on the road stretches managed with dynamic lanes);
- Users (by telephone or using the SOS columns along the road network).

First of all, the information is relayed to the operators of the Traffic Information Center (Radio Traffic Information Center), who immediately forward it to the Road Police, the operation managers and to the emergency entities (mechanical rescue, sanitary rescue, firemen, possible specialized companies, etc.). The measures needed to address the situation and the relevant decisions are taken, in close cooperation with the concessionaire company (through the representative responsible for the involved road stretch) and the Road Police.

The actions undertaken vary a lot according to the type of accident (number and kind of vehicles involved, consequences on people, impact on traffic, etc.). When there are potential serious injured people or fatalities, priority is given to the emergency rescues, then – and only after that - the mechanical rescue services are activated in order to restore the traffic conditions. If there is a fire or if dangerous goods are involved in the accident, firemen are the first one to be activated and, once they arrive to the place of the accident, they take complete control of the operations.

Concerning the successive steps from the moment the information arrives (step 1), the average time is:

- From the first transmission of the information (step 1) and its receipt by the road operator (step 2): almost in real time;
- From the receipt of the information by the road operator (step 2) and the decision on the action(s) to be taken (step 3): it depends on the time spent to reach the place of the accident. From the exact moment in which the above rescue people is on the place, decisions are taken extremely rapidly (few minutes);
- From the decision concerning the action(s) to be undertaken (step 3) and the re-establishment of the road’s conditions prior to the incident, allowing the resumption of normal traffic flows: this is very difficult to estimate. This is a parameter which depends on several variables that have an impact on the accident: number and kind of vehicles involved (LVs and HGs), number of people involved and the degree of severity of the accident (injured/dead), possible loss of material from HGs, etc.

The official accident report is drafted by the Road Police and then transmitted to the concessionaire company and finally archived in a database which is shared with the Road Police. The concessionaire company has then the possibility to develop statistics on the main causes and dynamics of the accidents and also to take any action aimed at addressing the cause of the accident. In the meantime, another report is drafted by the operators of the information radio center, which includes the time/duration of the intervention and the different phases of the accident management.

The official report from the Road Police is sent to the concessionaire company usually within a month. The time of consolidating and verifying all the information included therein is usually of two months and a half. The report prepared by the operators of the traffic radio center is, on the contrary, available in real time and can be consulted by all the operators of the concessionaire company.
2. National Cases

2.2 APCAP – Portugal

In Portugal, in case of an accident, it is usually the police or the road operator who starts the ‘live-saving’ chain process. In some specific cases, it is the driver who can call the emergency number “112”.

Initially, the Police / emergency services / the fire brigade are all informed and, as a second step, the road operator. The exchange of information is done through the radio broadcasting and/or via the road traffic information service.

The responsibility for the action(s) to be taken lies with the police or the fire brigade or the emergency services according to the specific case. The road operator can intervene afterwards.

Each authority is responsible for specific tasks:

- Police – general coordinator of the intervention procedures;
- Fire brigade or emergency services – acting directly on the accident to extinct the fire or to help/transport injuries; fire brigade can also wash and clean the road;
- Road operator – call the emergency services and is responsible for providing the car patrol. The car patrol installs the protection signage of the accident (traffic lane diversions), helps the police to contact fire services or emergency services. The traffic control center of the road operator is responsible for the VMS alerts. The road operator is also responsible for road washing and cleaning.

As regards to the action chain from the moment the information (step 1) is sent, the average time is:

- From the first transmission of the information (step 1) and its receipt by the road operator (step 2): variable;
- From the receipt of the information by the road operator (within step 2) and the decision on the action(s) to be taken (step 3): the road operator takes contact immediately with the emergency services to understand which actions have to be undertaken;
- From the decision on the action(s) to be undertaken (step 3) and the re-establishment of the road conditions as prior to the incident, allowing the resumption of normal traffic flows: variable, but each road operator company has its own indicator to measure the average response time after an accident.

Concerning the reporting procedure, the road operator issues its own report on the accident which contains all the key aspects such as the vehicles identification, number of injuries, insurances companies, accident causes, meteorological data, and road damages. The police send their final report when requested by the road operator company. However, in case of fatalities, the police are not entitled to send any report. The police report is sent to the road operator within one month.

2.3 ASFA – France

In France, in case of an accident, the information can be collected from different sources:

- Road police (by telephone communication);
- Operators being on the road network for their ordinary control activities (again by telephone communication or through radio);
- Video cameras monitoring the traffic;
- Advanced sensors detecting stopped vehicles (this is typical in the equipped road tunnels or on the road stretches with very heavy traffic);
- Users (by telephone or using the SOS columns along the road network located every 2 kilometers).

The information is sent, firstly, to the operators of the Traffic Information Center who immediately forward it to the Road police, the operation managers and the mechanical rescue. The measures for managing the accident and the traffic are taken in close cooperation with the concessionaire company (through the representative responsible for the road stretch in question) and with the Road police. The operations vary a lot according to the typology of the accident (number and kind of vehicles involved, consequences on people, impact on the traffic, etc.).
When there are injured/dead people, the Road police immediately forward the information to the emergency services or fire brigade. In all these cases, priority is given to the emergency services. Afterwards, the mechanical rescue services are called to restore the traffic circulation. If there is a fire or if dangerous goods are involved in the accident, firemen are called and, as they arrive to the place of the accident, they take full control of the operations.

Concerning the consecutive steps from the moment the information arrives (step 1), the average times is:

- From the first transmission of the information (step 1) and its receipt by the road operator (step 2): almost in real time;
- From the receipt of the information by the road operator (within step 2) and the decision on the action(s) to be taken (step 3): it depends on the time spent to reach the place of the accident. From the exact moment in which the above rescue people is on the place, decisions are taken extremely rapidly (few minutes);
- From the decision of the action(s) to be taken (step 3) and the re-establishment of the road conditions as prior to the incident, allowing the resumption of normal traffic flows: this is very difficult to estimate. This parameter depends on several variables which have an impact on the accident: number and kind of vehicles involved (LVs and HGs), number of people involved and their health conditions after the accident (injured/serious injured), possible loss of charged material from HGs, etc.

2.4 ASFINAG – Austria

In case of an accident, the life-saving chain process can be activated by different actors. Within ASFINAG, the regional traffic management centers are mainly in charge of sharing the information. Procedures and responsibilities are part of the “ASFINAG Incident Management”.

Incident is detected and reported

- By mobile phone (122,133,144) police, fire brigade, ambulance
- Emergency phone
  - Maintenance teams, tolling officers, customer service center
  - Traffic news on national radio etc.
- By regional traffic management centers or maintenance teams
  - Implementation of the first measures
  - Information of national traffic management centers
  - Information of maintenance team and regional traffic management center respectively
- By régional traffic management center
  - Implementation of the first measures
  - Information of national traffic management centers
  - Information of maintenance team respectively

ASFINAG Incident Management
According to the Austrian law, the Police is the responsible entity to lead the safety operations. ASFINAG as road operator gives support by traffic warnings, rerouting, cleaning and reporting.

Each authority has its own specific responsibilities:

- **Police**: managing the post-accident operations, traffic management, accident investigation;
- **Fire and emergency services**: medical aid, car rescue, firefighting, cleaning;
- **Road operator**: supporting traffic management, providing traffic information, cleaning the infrastructure;
- **Company ad hoc**: towing cars and trucks.

Concerning the steps from the moment the information arrives (step 1), the average time is:

- From the first transmission of the information (step 1) and its receipt by the road operator (step 2): estimated in less than 5 minutes;
- From the receipt of the information by the road operator (step 2) and the decision on the action(s) to be taken (step 3): immediately by the traffic operator, less than one minute;
- From the decision on the action(s) to be taken (step 3) and the re-establishment of the road conditions as prior to the incident, allowing the resumption of normal traffic flows: less than one hour.

The police provide a statistical report to the road operator within a month after the accident.
2.5 AWSA – Poland

In Poland, in case of an accident, the live-saving chain process can be activated by different actors according to each specific case:

- Road users can call the Management Center managed by the motorway operator;
- Road users can call the national emergency number 112 and then the information is communicated to the police, State fire services, emergency services and to the motorway operator;
- Motorway patrol informs the Motorway Management Center (radio communication) which passes the information to the emergency services;
- Emergency services inform others through their communication systems.

The police and the road operator are always informed about the accident and, in addition, based on each specific situation:

- State Fire Service (most cases);
- Emergency Services including Air Emergency Service (in case of injured);
- Road Transport Inspection (especially when a truck is involved);
- Public Prosecutor Office (in case of fatalities);
- “Tow away” company (if needed);
- Representatives of the Motorway Concessionaire;
- Local radio station when the information needs to be quickly disseminated.

Concerning the actions to be taken, each entity/authority has specific responsibilities:

- Police: traffic direction, decision on the closing of specific section;
- Fire and emergency services: medical aid, extinguishing a fire, environmental pollution protection, etc.;
- Road operator: securing the area (signage, warning other drivers), re-establishment of the road condition including pavement cleaning;
- Company contracted by the road operator: towing away damaged vehicles;
- Representatives of concessionaire: making decision on the possible suspension of toll collection.

Concerning the timeframe of all the different actions:

- From the first transmission of the information (step 1) and its receipt by the road operator (step 2): between 0 and 10 minutes;
- From the receipt of the information by the road operator (step 2) and the decision on the action(s) to be taken (step 3): up to 5 minutes;
- From the decision on the action(s) to be undertaken (step 3) and the re-establishment of the road conditions as prior to the incident, allowing the resumption of normal traffic flows: it depends on each specific case.

2.6 DARS – Slovenia

In Slovenia, in case of an accident, the information can be sent by:

- the driver;
- the police;
- The DARS maintenance or Rescue center.

The information is normally received by telephone. In chronological order, the first to be informed is the road operator, secondly the police & emergency services and finally the traffic information center.

Concerning the action(s) to be taken, the fire brigades are the one leading the process, secondly the police and ultimately the Road operator. Their main responsibilities are:

- Police: rerouting & accident investigation;
- Fire and emergency services: fire and rescue operations;
- Road operator: safety system management, rerouting through VMS, traffic information.
Concerning the timeframe of the different actions:

- From the first transmission of the information (step 1) and its receipt by the road operator (step 2): system: 30 sec.; other: 30 sec. – 1 min.
- From the receipt of the information by the road operator (step 2) and the decision on the action(s) to be taken (step 3): 4 – 10 min;
- The decision on the action(s) to be undertaken (step 3) and the re-establishment of the road conditions as prior to the incident, allowing the resumption of normal traffic flows: 1 -3 hrs.

There is no obligation from the relevant actors to send to the road operator a final report of the accident, including its causes and the procedures that have been followed.

### 2.7 KAPSCH – Czech Republic

In case of an accident, any of the people involved or witnesses can report the accident to the emergency number of the Integrated Emergency Rescue System (112) or the police (158). Subsequently, the police dispatch a mobile crew and record the accident in line with Notice 32/2001. In case of injured people the emergency services are immediately called (155).

In chronological order, the authorities to be informed are:

1. Police;
2. Emergency services (in case of injury);
3. Fire brigade (in case of fire or blocked vehicles);
4. Road operator.

Concerning the different actors involved and their specific responsibilities:

- Police: securing the area of the accident, distribution of information to the road operator;
- Emergency Services: medical aid and any support to the people involved;
- Fire brigades: special tools for releasing people from wrecked cars.

Concerning the timeframe of the different actions:

- From the first transmission of the information (step 1) and its receipt by the police (step 2): within minutes;
- From the receipt of the information by the police (step 2) and the decision on the action(s) to be taken (step 3): within minutes;
- From the decision on the action(s) to be undertaken (step 3) and the re-establishment of the road conditions as prior to the incident and the re-establishment of the normal traffic flows: it depends on each specific case.

The police and fire brigades are the entities responsible for collecting the information related to the accident according to Notice 3/2006. They have also to submit this information to the traffic information centre. Generally, the report is sent within days after the accident.
In Greece, once the accident occurs, detection is achieved either automatically, through alerts activated by the Supervisory Control And Data Acquisition system (SCADA) or manually by visual observation:

- by the Traffic Management Center (TMC);
- by the operator through the tunnel management systems and the motorway management system (CCTV etc);
- by the operator’s personnel (Patrol, Intervention Team, Toll Collector etc., or through calls placed by external services (Police, Fire Brigade, EKAB, RU etc);
- by users or other forms of notification (Emergency Roadside Telephones / ERT or mobile phones).

The implementation of the response plan is taking place simultaneously with the confirmation of the accident, which is performed through the collection of additional information by all the available detection resources. Especially in case of automatic detection, confirmation through the CCTV or by sending relevant member of staff to the site, is necessary.

The response plan includes a number of actions, which are performed at the Traffic Management Centre (TMC) of the motorway, as well as at the site of the problem (field) and include:

- The notification and mobilization of the Company’s personnel is ensured, as well as the notification of the Emergency Services (which are mobilized via their own mechanisms), the concessionaire and any other external parties and the quick and reliable notification of the users, the employees and the general public. Special subcontractors of road assistance of light and heavy vehicles are also mobilized when necessary in order to move the vehicles involved outside of the road.
- The competent personnel of the Company, the emergency services and other external authorities (i.e. road assistance) arrive at the site and the necessary measures are taken (traffic regulation, implementation of safety measures, fire-fighting, rescue missions, etc.), always under the coordination and consultation of the TMC (and / or the competent Centre of the emergency service involved). All the parties involved at the site shall be in constant communication with the TMC, in order to confirm the extent of the incident and receive instructions, so as to prevent the situation from aggravating and / or the users and employees from being exposed to danger, as well as the motorway and its equipment from sustaining further damage. The emergency services, such as the Traffic Police have the ultimate authority for traffic and safety management on the site, while the fire brigade may take the lead in cases of fire. The company’s units and personnel shall provide first level response, prior to the arrival of the emergency services and will subsequently follow their instructions and provide the assistance requested from them, subject to the company’s resources and duties.
- The TMC personnel operates in a special mode the tunnel or / and the motorway systems and equipment, which helps with the management of traffic and safety and maintains constant communication with the company’s personnel (e.g. P, IT, Recovery Units, etc.) or the emergency services (e.g. Traffic Police, Fire Brigade, EKAB etc) involved in the management of the incident, by transmitting any related information, using the appropriate means and serving as the main point of contact through which the information is centrally channeled. The TMC registers all new or updated information in the incident and / or damage checklist.

There are many needed actions subsequent to an accident. The site must be cleaned and the temporary signing must be removed before traffic is restored in the lane that was closed. The emergency services, as well as any external parties, which may have assisted, leave the site. The company’s on-site personnel shall clean the site, remove the temporary signing, notify the TMC in respect of the termination of on-site activity and shall declare the termination of the incident, as far as it concerns the motorway traffic operation, deactivate the special operation mode of any systems and equipment and restore them to their default operation mode.
and close, store and file the checklists of information of incidents and/or damages. After that, normal traffic conditions are gradually restored.

Concerning the timeframe of the different actions:

- From the first transmission of the information (step 1) and its receipt by the road operator (step 2): almost in real time;
- From the receipt of the information by the road operator (step 2) and the decision on the action(s) to be taken (step 3): the average response time (time spent by the operator’s personnel to reach the place of the accident) in most of the motorway operators is approximately 12 minutes. From that moment, decisions are taken extremely rapidly (few minutes);
- From the decision on the action(s) to be undertaken (step 3) and the re-establishment of the road’s conditions prior to the incident, allowing the resumption of normal traffic flows: the “clearance” time depends on the number and type of vehicles involved (LVs or HVs) and of the number of persons involved and their condition from the accident (injuries/fatalities), etc. However, the average clearance time for all kind of incidents in Greece is approximately 48 minutes.

For the accidents with property damages only, the Traffic Police prepares a simple report with the data of the drivers and vehicles involved and a short description of the way the accident occurred. Concerning accidents with casualties (injuries and/or fatalities), the Traffic Police prepares a “Road Accident Report” which contains much more detailed information on the conditions of the accident (traffic, road, weather and lighting conditions), of the vehicles involved (type, age, safety equipment) and of the drivers and passengers or pedestrians involved (age, sex, condition, etc.). The documentation is submitted to the National Statistical Service at the end of each month. A copy of it is sent to the motorway operator. Concerning the accidents with property damages only, the operator asks the relevant report by the Traffic Police in order to keep it in his files as it may be necessary in case of a complaint or claim by the user.

2.9 HUKA – Croatia

In case of an accident, most of the time, the National operation centre is the first to receive the information from the motorway user. Once the accident occurs, the information is delivered to the Traffic Control Centre via the 112 National operation centre or, in some cases, directly from the user via the SOS phone on the road. The traffic Control Centre shares the information with all the relevant authorities. Information is sent by phone, cell phone, fax, e-mail, web, VMS.

In a chronological order, the authorities to be contacted are:

1. 112 National operation centre (informs police, ambulance, public fire brigade and TCC);
2. Police;
3. Ambulance;
4. Fire brigade (professional fire brigade as a part of maintenance company or public fire brigade);
5. Road patrol, Traffic Control Centre (rerouting traffic on the spot, traffic management on VMS portals and LED signs);
6. Eco protection service (if needed);
7. Media (radio information is delivered from TCC via Croatian Automobile Club (HAK); web; domestic and foreign traffic control centres);

(Remark: fire brigade, police and ambulance can be alarmed via conference call through 112 emergency service.)

Each entity has some specific responsibilities/tasks:

- Ambulance: evacuates and provides medical help to casualties, transports injured people to medical facilities;
- Operator in TCC: manages ITS systems and traffic in (time) of the accident, coordinates the actions of operative services on the spot, informs towing company and eco service contractor if needed;
• Road patrol: secures the area of the incident, regulates traffic, provides information to the Traffic control center operator, provides detailed information for later analysis (by fulfilling the official documentation), organizes and conducts cleaning the accident location, and replaces damaged road equipment.

Concerning the timeframe of the different actions:

• From the first transmission of the information (step 1) and its receipt by the road operator (step 2): 1-3 minutes;
• From the moment the information arrives to the road operator (step 2) and the decision on the action(s) to be taken (step 3): 1-2 minutes;
• From the decision of the action(s) to be undertaken (step 3) and restore of the road conditions as prior to the incident, allowing the resumption of normal traffic flows: on average 1,5 hours but this depends on the type of accident. For ex. skidding from the roadway can be solved within 1 hour, while fire on vehicle or other accident could take much longer, even 12 hours – fire extinguishing, cooling, inspection, transport of vehicles, cleaning of the spot, depending also on the fact that there might have been fatalities or injuries...).

Road operator receives the information concerning the accidents through a company responsible for the maintenance that is founded on the Act on roads by the road operator. Above mentioned contractual company is Croatian motorway maintenance and tolling LTD (HAC ONC). Operators in Traffic control centre and road patrol are operative staff of HAC ONC. HAC ONC receives specific information on the incident from the police and makes a detailed analysis of accidents every 6 months.

2.10 SEOPAN – Spain

In case of an accident, the first authority to detect the accident is responsible for sending the information to all the relevant entities and, in primis, to the entire emergency departments: fire departments, police, medical care, etc. The information is sent using different communication tools (telephone, mail) to the different stakeholders. People are reached through VMS and other road alerts.

Each entity has some specific responsibilities/tasks:

• Police: site inspection, clearance, aid to and transport of casualties, manage the traffic;
• Fire and emergency services: site inspection, clearance, aid to and transport of casualties, manage the emergency situation;
• Road operator: site inspection, provides information concerning the traffic situation, provides resources to support the safety operations, gathers information;
• Company in contract with the road operator: clearing the area.

Concerning the timeframe of the different actions:

• From the first transmission of the information (step 1) to when it gets to the road operator (step 2): 2 minutes;
• From when the information arrives to the road operator (within step 2) and the decision on the action(s) to be taken (step 3): 1 minute (all the decisions to be taken are already defined according to specific emergency plans);
• From the decision on the action(s) to be undertaken (step 3) and restoring the road conditions as prior to the accident, allowing the resumption of normal traffic flows: 20 minutes to several hours, depending on the specific situation.

The road operator can employ experts to asses and subsequently advice on what decisions are needed to address the emergency situation. The road operator is responsible to issue the report of the accident and to send it to the relevant authorities.
2.11 Sund & Bælt Holding A/S – Denmark

Accidents at the Storebaelt links are normally reported by mobile telephone or by emergency telephones located along the motorway by the people involved in the accident or by other drivers. The accident is reported to the police emergency dispatch centre (short number 112). There are 2 emergency dispatch centres in Denmark. If the traffic control room observes an accident, the local police dispatch centre will be called directly by the control room staff. The police are responsible for calling the relevant emergency and rescue services based on the type of accident. The actors to be called are defined in the standard emergency plan for the fixed link. In the case of accidents resulting in fatalities or with injuries, the following actors are called:

- Police;
- Fire and rescue service;
- Ambulance Service;
- Road patrol (Sund & Bælt’s contractor).

As leader of the emergency situation, the police decide on the overall plan of actions to be executed in coordination with the other parties. Each emergency actor is responsible for some specific actions on the site of the accident:

- Police: coordinator of the entire emergency situation - strategically, operationally and tactically and for closing the accident site. Communication with the press is also under the responsibility of the police. The police decide whether or not to close the motorway;
- Fire and emergency services: responsible for the technical operations in the closed accident site and for cleaning up after the accident assisted by the road operator if needed;
- Road operator (Sund & Bælt): assists the police with equipment and marking, TMA, etc., to protect the rescue team and the traffic. Warning of traffic using variable message signs in dialogue with the police. It facilitates the cleaning of the infrastructure. The Sund & Bælt road patrols are normally the first to arrive at the site of the accident and they start the marking of the accident in order to warn other drivers. At the Storebaelt link the road maintenance and marking is outsourced and sent out for tender based on a specific contract;
- Ambulance service: the main task is the treatment of injured people in coordination with the rescue team;
- Vehicle accident investigator in case of fatalities: this person shall always inspect the site and the involved vehicles before cleaning up.

There is no final report of the accident from the relevant actors to the road operators. The relevant information regarding accidents is recorded in the national accident register where the police normally define the type of accident, the presence and number of fatalities, serious injuries, injuries or only material damages. On the other hand, the rescue service sends the report of their intervention to all the other authorities, including Sund & Bælt as road owner/road operator. This report is sent within 1 month and the national accident register is normally updated every 3-4 months.

2.12 TOLL COLLECT – Germany

In case of an accident, the information is sent by the involved people or witnesses through the general emergency call number 112 or via emergency call columns along the motorways.

The relevant authorities that are immediately informed are road operators, the police and the regional control centers of fire and emergency services.

The relevant stakeholders share different responsibilities according to their role:

- Police: secure the accident area, investigations and recording;
- Fire and emergency services: live rescue, transport of injured persons, clearance operations;
- Road operator: restore the safest conditions on the road infrastructure.
3. Final Remarks

In case of an accident, the emergency plan or ‘life saving chain’ operations change according to the specificity of each European country. Concerning the actor/authority who is responsible to send the relevant information and the communication tools to be used, there are three most common situations:

The information is sent via emergency phones along the network using the 112 number. Usually the information is sent to the police, fire services or emergency services, road operators or traffic management/information center but not in the same chronological order in all the countries considered. On most of these national road networks, the police or/and the fire department are the prime responsible entity in the procedures and actions to be performed.

Concerning the action plans to be executed and the related timeframe, from the moment the information is sent (step 1), the average time range is:

- From the first transmission of the information (step 1) to the moment the road operator receives it (step 2): 1 to 10 minutes;
- From the arrival of the information to the road operator (step 2) and the decision on the action(s) to be taken (step 3): 1-10 minutes;
- From the decision on the action(s) to be carried out (step 3) and the restoring of the road conditions as prior to the accident, allowing the resumption of normal traffic flows: from 20 to 180 minutes (depending on each specific case).

Finally, in most of the countries, road operators receive a final report on the accident, including the key information (causes, type of accident, people involved), from the police within a period of 1 month. The information provided is very useful in order to investigate the causes of the accident and therefore take the right measures for addressing any possible danger to the safety of their customers.