EENA Operations Document

Call taking procedures and data to be gathered

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1 Introduction

When a citizen contacts the emergency services, he or she may be in the worst situation of his or her life. It is also possible that they have been asked by another person to call for help, and they know little or nothing about the actual emergency. Call-takers needs to know exactly the actions and steps to be taken without unnecessarily tying up the call taker for long periods of time. Furthermore, in emergency calls handling, identifying those calls that do not need an emergency response is as important as identifying those that do.

To handle this emergency situation, different stakeholders and professionals have to interact[1]. Procedures are a series of actions conducted in a certain manner; they establish a way of doing something. Common procedures known by all professionals involved in an emergency resolution assure efficiency. It has been demonstrated that improvisation is less effective than protocols.

Procedures have information as inputs. Data to be gathered in each step of the emergency resolution are crucial to launch the correct procedures. Sharing information and using common procedures make emergency organisations interaction easier and results in more efficient and effective interventions. The absence of information should not prohibit a response, so the procedures need to cover this.

Furthermore, gathering data and information makes it possible to evaluate how an emergency situation has been dealt with. All actions, from the moment the citizen dials 112 until the last intervention resource leaves the incident of the emergency, have to be registered so that research and therefore further learning can take place.

The scope of this document is to assemble information about this issue and outline some of the 'best practice' approaches from the authorities' perspective. The description of practices was obtained through information sent by EENA members. As a conclusion, recommendations and EENA requirements are described.

2 Abbreviations and Glossary

All definitions of terms and acronyms related to 112 are available in the 112 Terminology EENA Operations Document.[2]

3 Procedures

3.1 Importance of procedures in emergency management

Procedures ensure a standard response to emergency situations as they are independent from individual human influences. Strategic and tactical processes have to be described in procedures, e.g. high level emergency management procedures, as well as very detailed description of how to handle an emergency call are needed.

Effective emergency management relies on a thorough integration of emergency plans at all levels of the organisation and an understanding that the lowest levels of the organisation are responsible for managing the emergency and getting additional resources and assistance from the upper levels. Sending the most appropriate resources early on in the call can reduce the stress of those involved in responding as well as ensuring the best outcome for the citizen(s) involved in the emergency.

From an individual professional's perspective, the use of the same terminology and protocols improves safety. All professionals can be confident that the situation will be understood in the same way. It also minimises legal liability. All steps and decisions are more easily reproducible and the reconstruction of how the incident was resolved becomes simpler.

[1] 112 service chain description: www.eena.org/ressource/static/files/2011_06_10_1_1_1_servchain_v1.0.pdf

[2] www.eena.org/view/en/Committees/112operations/index/generalframework.html

The use of the same structure when handling an emergency situation optimises the time of response and the probability that something important is forgotten. In some emergency handling organisations, only guidelines are described. Guidelines are better than nothing at all but they are normally not accurate enough and allow a large around of interpretation. Consequently, how these guidelines are followed is extremely difficult to evaluate. We believe that only a structured, validated procedures and protocols are needed in emergency situations.

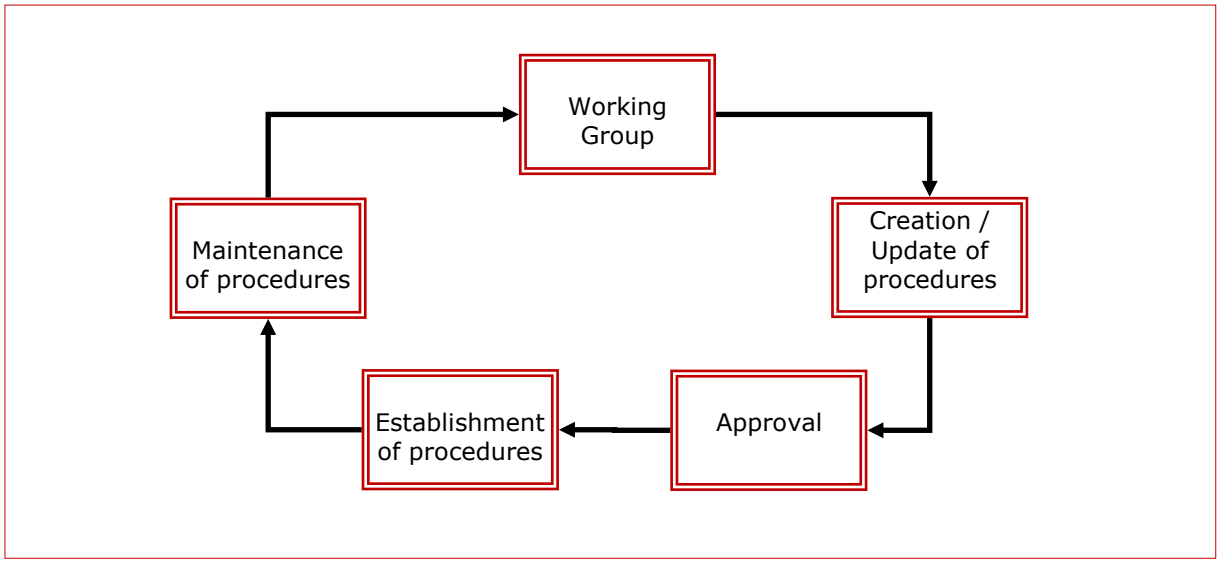
Accurate procedures will ensure:

- Fast localisation of the incident;
- Valid classification of incidents;
- Rapid dispatch of appropriate resources along with phased information updates for the intervention teams;
- Accurate incident information to resources including pre-arrival instructions;
- Efficient speed of arrival at the scene with the right resources; and,
- Seamless voice and data communication between different agencies

Also, when multiple agencies / Emergency Services are involved, shared protocols and information exchange procedures should be clearly established.

3.2 Life cycle of procedures

Procedures have to be dynamic. They have to be reviewed, if experience shows that it is needed.



Working group:
There is a sense of ownership among procedure users. For this reason, it helps to involve users in the development of procedures. Users can review what has worked, and what has not.

Creation / Update of procedures:
Procedures have to be developed with the user in mind as well developed and thought out procedures provide benefits to the users. The procedures have to be understandable and therefore they should be written in a concise way. What needs to be done has to be easily followed by all users.

Approval:
Once the procedure has been created or updated, it has to be approved by all the organisations involved. For accuracy purposes, it has to be tested and double-checked.

Establishment of procedures:

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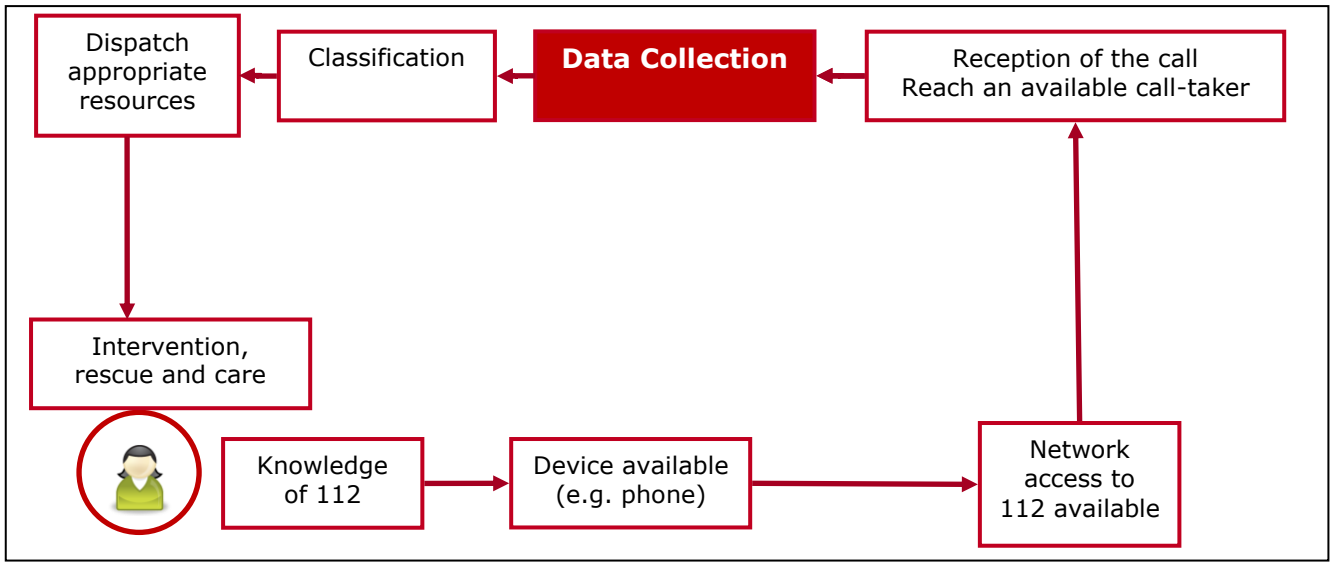
All involved professionals have to be informed of the creation or update of procedures. Special training can be necessary.

Maintenance of procedures:
Procedures cannot be static; therefore feedback from users is crucial to guarantee correct and optimal procedures. A continuous system and error analysis ensures a good control of the correct usage of the procedure. A mechanism has to be established to receive feedback from users.
Usage of KPI for the analysis of the efficiency of protocols is highly advised.

4 Data to be gathered in the emergency service chain

4.1 Emergency service chain

A call to emergency services starts a sequence of tasks by different stakeholders taking part in the emergency service chain.[3]



The first task to be achieved by emergency services is data collection. Where is the caller and what is happening are the most important pieces of information. This data is decisive in order to establish what resources are needed. The absence of information should not preclude a response.

It is also worth mentioning that data collection may be fulfilled in several steps and by several organisations. The main differences are:

- Number of organisations involved in the emergency calls handling chain: e.g., only one organisation fulfilling all tasks from call reception to the dispatch of intervention resources; or many organisations such as one for the reception of the call and data gathering and several emergency response organisations for the intervention resources dispatch..
- Type of organisation in charge of first reception of 112 emergency calls: e.g., emergency response organisation independent PSAP, emergency response organisation PSAP, etc.
- Tasks fulfilled by the organisation in charge of the first reception of 112 emergency calls: e.g. organisation responsible for filtering the calls, organisation in charge of the whole chain tasks, etc.

[3] 112 Service Chain EENA Operations Doc.: ww.eena.org/view/en/Committees/112operations/index/generalframework.html

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- Division of the tasks in several steps: e.g. one organisation is in charge of calls' reception, data collection, and classification and other organisations are responsible for the final dispatch of intervention resources.

4.2 Data collection

Independently of who or what organisation is in charge of collecting data, the following information is gathered:

Automatic caller's location data	This information shall be provided by telecommunication operators[4]
Automatic caller line identification	It is necessary to be able to establish a permanent link to the caller. To achieve this, it is crucial that PSAPs receive caller line identification, something that ensures that calling back is possible
Caller's phone number	It is crucial for emergency services to have the possibility to call back a caller. In most cases the caller line identification (CLI) will be the contact number of the caller. Where the caller is not the person directly involved in the emergency, then contact details for that person should also be collected if possible. The CLI of course is often used for locating the caller and is an integral part of the data that needs to be collected.
Personal details of the caller (name, identification number, address, etc.)	This data are not required in some countries. Data from special types of callers (i.e. deaf or hard of hearing) should be available, either manually or automatically (through a pre-registration process or through interoperability with other services).
Emergency situation's location	The location of the caller may not be necessarily the same as the location of the emergency and therefore the two possibilities need to be established and treated accordingly. The location of the emergency needs also to be known using whatever address information, including the standardised formatting, is capable of being retrieved, utilised and stored. Moreover, the best access for responders should also be considered where this is not obvious particularly where the location may be in a rural area or in a high density urban building. Indeed the treatment of possible multiple addresses should also be considered as part of the data collection procedures.
Description of the emergency situation	The caller describes the emergency situation and the call taker can also add some information from other sources, e.g. back ground noises.
Depending on the emergency situation, different type of information has to be collected following the procedures	The emergency services' call taker asks the caller different type of information depending on the nature of the emergency, i.e. information to be gathered in case of a traffic accident will be in most cases different from a robbery.
New information given by other callers	Different calls may be received for the same accident. If possible, all information should be centralised and shared. Care must be taken to ensure that callers are all talking about the same incident. Confirmation could be sought of the description of cars involved in a traffic collision, as it will always be possible that there are two incidents in the same road.
New information given by emergency services	Once emergency services' resources, or other trusted individuals are in the location of (or have sight of) the incident, additional information can be added and updates inputted as neccessary.

[4] Caller Location in Support of Emergency Services EENA Operations Document: http://www.eena.org/ressource/static/files/2011_05_27_2.2.2.cl_v1.3.pdf

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5 Data collection and procedures

There is a mutual dependency between data and procedures, i.e. depending on the collected data, a different procedure will be used and, depending on the adopted procedure, different types of data will be required. In this section a very general figure of a general call taking flow is presented. Please note that it is not intended to be an exhaustive list but a generalisation of the main steps, data and procedures.[5]

[5] EENA Operations Document: http://www.eena.org/view/en/Committees/112operations/index/psaps.html

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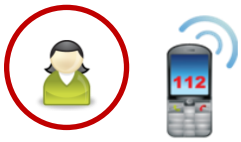

Procedures:
Call routing
Eventual use of automatic message

Data: Caller line identification and location

Before the call is answered

Procedures:
Use of historical data
Hang up and abandoned calls
Site or patient specific data
Data: Historical data of this caller line identification

Once the call is answered

Procedures:
Welcome answer
Steps to be taken in case of silent calls
Not silent calls
Data: Given by (or not known by) the caller

Depending of the nature of the call

Procedures: detailed steps to be taken in case of
Multilingual calls
False emergency calls
Emergency calls
Caller with disabilities
eCall
Automatic alarms
Queries / information request
Claims

Data: Given by the caller and automatic data

Depending of the nature of the emergency

Procedures: detailed information depending on the type of incident
Traffic accidents, Medical emergencies
Fire, Planned Events, Mass Events, Natural Disasters etc.

Data: Given by the caller

Emergency resolution

Procedures:
Resources to be dispatched
Actions to perform, Agencies to involve
Call back the caller if needed
Information update
Data: Given by emergency services organisations

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6 European examples

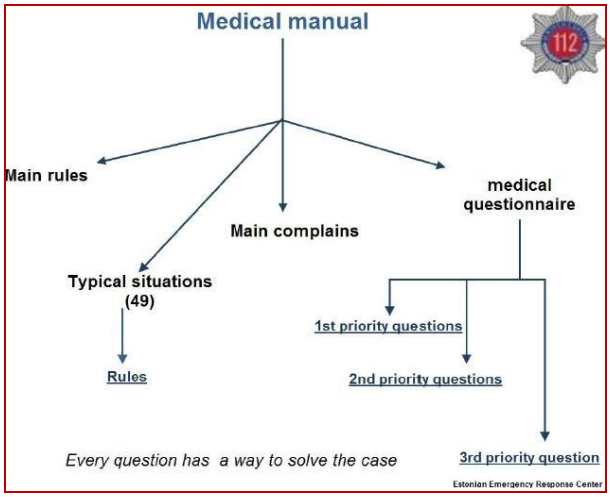
6.1 Estonia

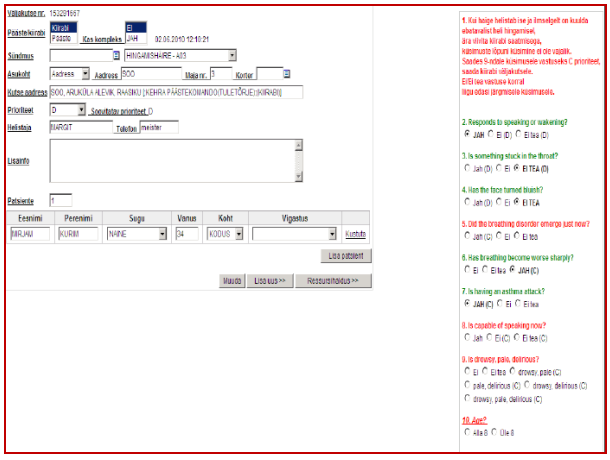
Call triage

- Manual for medical cases management
- Work started in 2004
- In use since 1 April 2008

IDEA and PURPOSE

- Questionnaries are for call-takers
- Help to find the questions and answers about the patient's health status
- Call-taker is not a parrot but thinking human
- We are not diagnosing- we are finding out the real condition at the moment of call
- We give priorities for ambulance: D, C, B, A and consultation
- Where the manual ends, the doctors start to work





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Rescue questionnaries

- Start August 2010
- Finish December 2010
- In use since June 2011

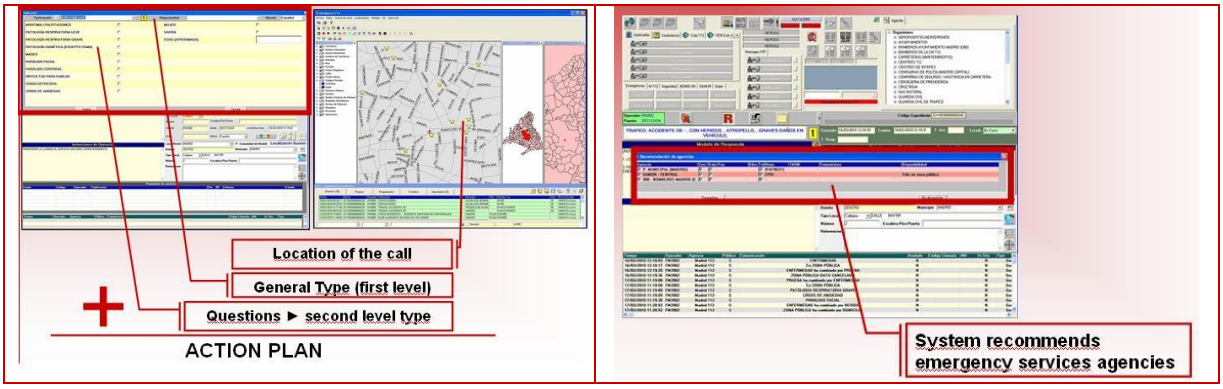
Consist of:

- Main rules
- Rules
- Classificators (10) with specialities inside (27) and separations for more concrete cases
- Main questions – special questions
- Questions give the priority to the case

6.2 Spain

Region of Madrid

Before the call is received, location of the caller and caller line identification are received. The call-taker answers the call, asks the emergency's location and selects the type of incident e.g. house fire, cardiac arrest, etc. Depending on the type of the incident different questions are made to the caller. After all information is collected, the system proposes to the call-taker what are the emergency services organisations to be dispatched.



Catalonia

The main objective of the emergency call center public service is to provide a fast, simple, effective and coordinated emergency assistance to the requests made by any citizen in the area of Catalonia. Procedures and protocols ensure that all tasks are carried out in a coordinated way.

- Data Collection
    - Automatic Tracking / Phone and location Identification
      Once a call is answered, the PSAP software automatically locates the position of the handset, which is determined -in the case of landlines- by the tables provided by the Telecommunications Market Commission (CMT) and, in the case of mobile phones, by the triangulation of the positioning made by phone operators (geolocation). This information, along with data provided by callers, helps the call-taker locate the incident.
    - Historical data of this caller identification
      The software application provides the call-taker with different proposals of association, according to the phone identification and / or incident location. In this way call-taker can detect incidents located in

the same area or phone calls made by the same telephone in order to avoid duplicating information for the same incident.

- Call Management

  - Calls Identification: the calls answered by 112 can be
    Operative: calls managed by 112 that involve a real emergency and demand resource activation.
    No operative: calls that should not be managed by 112: Technical calls (-silent calls, calls without caller), erroneous calls, calls requesting information, jokes, etc. For this type of calls the call-taker has speed dial buttons which send the call to an information voicemail.

  - Emergency Identification
    The 112 operator, depending on its indications, identifies the emergency and typifies it according to The Incidents Tree, which classifies all types of emergencies into fields and / or families, identifying the equivalence of these incidents with those defined by each operative resource. Moreover, an action protocol is created for each incident, which has been agreed by all the operative resources implied in every emergency situation.

  - Dispatch
    The system proposes to the call-taker what are the emergency services organisations to be dispatched.

    Intervention, rescue and care
    Catalonian 112 doesn't include the intervention neither the decision about the resources to be dispatch.

- Special Operative Procedures

Special Operative Procedures are those in which the alert notice arrives at the Reception and Management Emergency Call Centre through other means than telephone calls to number 112.

  - Attention System 112 for People/Callers with Hearing Disabilities
    In order to contact the emergency telephone number, people with hearing disabilities can use the mobile phone, through a system of receiving SMS or via fax.

  - Seqtaxi
    Emergency telephone number 112 has a technological platform that quickly connects taxis with the police in case of assault.
    When receiving a 112 call made from the Seqtaxi system, the operator attending the call can see the exact position of the vehicle and track it.
    Also, the operator listens to what is happening inside the cab, and can transfer the audio to the police if necessary.

6.3 Sweden

Procedure at an SOS centre (PSAP)

- SOS operators receive calls on the European emergency number 112, interview the caller, identify the address and assess the need for help
- SOS operators use a list of questions and a decision index and startcard is used when interviewing
- Two operators work side by side – "joint call"
- Priorities and resources for ambulance and rescue services
- In case of major incidents such as accidents, all the services are alerted simultaneously. In case of a major disaster the resources of the Swedish defence force and/or other aid agencies may be involved

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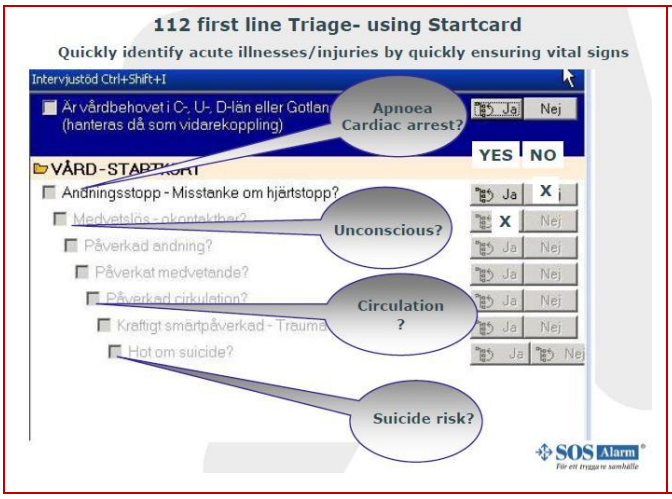

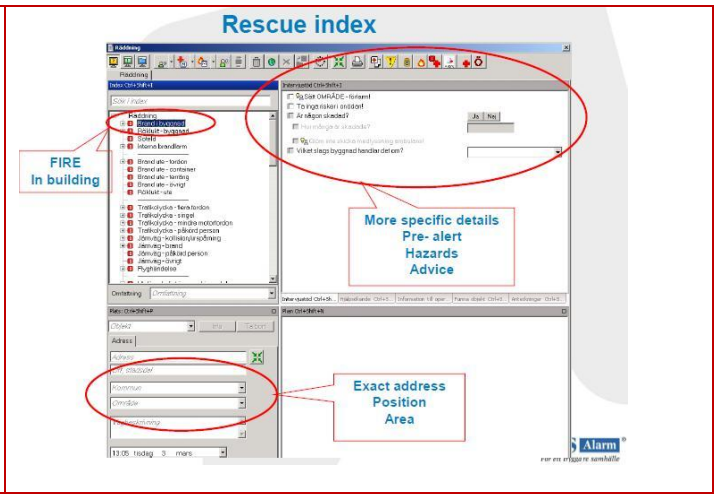

6.4 Romania

Call taker / dispatcher

- Identifies caller and emergency type
- Decides, based on protocols, which primary response to send
- Transmits the data / case file to experts from related agencies

Experts

- Follow up case
- Decide if secondary dispatching of response teams is needed
- Receive feedback from first team on site
- Share info with other experts in the room
- Take further decisions

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7 EENA recommendations

As a summary of this document we would like to make recommendations about procedures and data to be gathered and inform the stakeholders that are involved. It is not intended that all measures are taken in all cases. Some emergency service organisations may not agree in some of these points.

Stakeholders	Actions
European Authorities	Establish a network of experts to provide the sharing of experiences and the exchange of best practices
Telecommunication operators	Provide the location information and caller line identification to the PSAP in conformance with legal requirements
National / Regional Authorities	Make sure that emergency services have the necessary means (including budget) to create and maintain procedures
Emergency services	Procedure creation and maintenance

8 EENA Requirements

Requirements	
Detailed procedure of call routing	Compulsory
Silent, hang up and abandoned calls detailed procedure	Compulsory
Multilingual calls procedure	Compulsory
False emergency calls procedure	Compulsory
People with disabilities calls handling procedure	Compulsory
eCall handling procedure	Compulsory
Detailed questionnaires depending on the nature of the emergency	Compulsory

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