

# THE EUROPEAN EMERGENCY NUMBER 112

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## **ABSTRACT**

The working of the 112 Emergency Call System is a natural need in a civilized country that has as a main objective to protect its citizens. The single European emergency number 112 was introduced to enable citizens to call the emergency services (such as police, ambulance and fire brigade) by using the same number anywhere in the European Union (EU). This is especially important as European citizens increasingly travel to other EU countries for work, study or leisure. According to EU legislation, Member States must ensure that users of any type of telephone, fixed or mobile are able to call the emergency services free of charge by using the European emergency number 112. This number is now available in all Member States.

## **1. INTRODUCTION**

Dialing 112 is a fast way to communicate with the emergency dispatcher centers (police, fire department, ambulance) in case of emergency.

The 112 Emergency System works as a service with a unique dialing number, operational nationwide, on all telephone networks, fixed or mobile.

The 112 system aims at ensuring citizen protection and providing the highest level of assistance, regardless of their location. The Unique National System for Emergency Calls consists of emergency calls answering centers (Public Safety Answering Points) and their associated equipment - an operative telecommunications system, designed to notify, receive, process and transfer the emergency calls to the requested services, in a centralized and unitary way. The system is also used for communication between specialized response systems of the Police, the Fire Brigade, the Ambulance, which have the obligation to respond in case of emergency calls. In the future, depending on the developing necessities, new response agencies will be gradually encompassed: the Gendarmerie, The Civil Protection and Antiterrorism units.

The work of this integrated system is set up with the purpose of ensuring the protection of the citizens' life and goods and will help restore a state of normality in Romania, similar to that of the other European countries. The efficiency of this system will largely depend on the prompt response of the emergency agencies (The Police, The Ambulance, The Fire Brigade, etc) to the crisis situations reported by the emergencies calls.

The main objective of 112 is to safeguard lives, property and environment.

The Unique System for Emergency Calls establishes the contact between the caller asking for help in an emergency situation and the public safety agencies (their dispatcher centers).

According to Directive no 98/10/EC (ONP: provisions for the open telephone networks and the universal service in telecommunications), the 112 is the unique number for emergency calls throughout all European Union countries, being answered to in several foreign languages; it is a free of charge call that can be made from all terminals connected to the fix, mobile telephone, or other systems, to be at first implemented alongside the already existing systems.

In Directive no. 22EC/07.03.2002 of the European Parliament and Council (Universal Service Directive), the issue of 112 implementation is tackled under many articles (article no 6, 26 and Annex 1). The actions taken by the EU countries until 2001 for the implementation of the 112 system were included in the document entitled "State of implementation of the single European emergency call number", issued in October 2001 by the European Commission and which had as groundwork:

- the monitoring situation of the 112 implementation in EU on 06.01.1999 at the request of the Commission (DG Information Society, Communications Services: Policy and Regulatory Framework),
- the questionnaire developed by the Luxembourg Workshop (10-12 May 2000),
- the data provided by the member states.

Actions were also taken, aimed at analyzing and publicizing the implementation of the 112 system in the EU:

- the information campaign targeted at Belgian tourists traveling abroad (Belgium, September 2001);
- the workshop organized in Sweden (Rosersberg, 08-09.03.2002) on the effective use of emergency calls;
- the “Review of Telecommunication’s Regulatory” Framework, on which proposals were made with respect to the future of the 112 system, in the context of the development of the European Information Society;
- appointment by the Commission of a coordination group called CGALIES (Co-ordination Group on Access to Location Information by Emergency Services), with the mission of defining the pan-European requirements with respect to location, necessary for the “112 European community” and the emergency agencies call takers;
- the campaign organized by EENA - The European Emergency Number Associations for the introduction and popularization of the 112 system in Europe. This institution was set up drawing on the not-for-profit corporation model that emerged in USA as early as 1982 (National Emergency Number Association);
- the campaign of the “SOS 112 Europe” organization, aimed at attracting as many emergency services as possible, and providing the public with information on 112, but especially establishing an information exchange with the various emergency agencies in Europe, particularly with those connected to the 112 unique number for emergency calls.

The implementation in the European Union of the 112 unique number for emergency calls involved the analysis of certain issues regarding the set-up of the Public Safety Answering Points:

- multi-lingual (ensure that the calls can be answered in the European Union’s official languages);
- choosing a coordination method for the emergency calls received on 112 lines (specific to each of the following emergency center types):
  - 1 integrated (which handles all emergency call types and which, although is the best solution in the long term, is implemented on a lesser scale, maybe also on account of the disadvantages some countries have pointed out, regarding burden-sharing and the non-disclosure obligation);
  - 2 coordination of the emergency calls (which can be done by the police, fire brigade or ambulance); - already in place (by mere call diversion); - commercial (having no competence in handling emergency services);
  - 3 already in place (by mere call diversion);
  - 4 commercial (having no competence in handling emergency services).
- call location (confidentiality, the costs payment, the protocols with the communications operators, the licenses provisions upon their issuance, the database availability and update, as well as the responsibilities of the network operators and the emergency calls dispatchers);
- roaming;
- service definition provided by the Public Safety Answering Points;
- emergency definition (the events that can put in danger human life, the property and the environment);
- informing the citizens of the existence and the level of implementation of the unique number for emergency calls in the European countries;

- training PSAP call takers (ensuring uniform training, developing their communication abilities, training them in stress and crisis management).

## **2. RESPONSIBILITIES OF THE UNIQUE NATIONAL SYSTEM FOR EMERGENCY CALLS**

The Unique National System for Emergency Calls has, according to Law no.398/14th June, 2002, the following attributions:

- 1 Receives and automatically records the emergency calls received by: telephone, radio, automatic announcement devices, signaling, alarming by other methods, confirming and locating, as much as possible, the received calls;
- 2 Analyzes, organizes and promptly transfers the emergency calls to: specialized response agencies, competent authorities (depending on the nature of the events and their consequences);
- 3 Transfers the calls immediately, the data and the information received in case of disaster to the Permanent Technical Secretary of the Government Commission for Defense against Natural Disasters;
- 4 Receives and records the data and information regarding the events and response development;
- 5 Centralizes, stores and makes available for the competent authorities the data regarding the emergency calls being handled.

The Unique National System for Emergency Calls enables as well the handling of emergency calls in the languages of the national minorities in their administrative–territory units or, as the case may be, in one of the internationally spoken languages.

The services specialized in emergency response have the following attributions:

- to permanently ensure, through their own dispatchers, the handling of emergency calls transferred to them by the Public Safety Answering Points;
- to alert right away the response personnel;
- to maintain the connection with the forces and resources dispatched at the incident site.

The Unique National System for Emergency Calls is made available for all citizens nationwide (both Romanian and foreign) who are in an emergency situation.

The Public Safety Answering Points have a database helping 112 call takers to locate the call, to identify the nature of incident and the adequate response resources. This is possible by using two identification indicators:

- ANI automatic number identification : Automatic number identification: displays the caller's telephone number.
- ALI automatic location identification : Displays the caller's address, the place he calls from and further information needed to find the optimal solution, so that the response should reach the incident site in time.

In responding to an emergency, the AVL application (Automatic Vehicle Location) is also used to identify the position of the vehicles responding to emergency situations, equipped with (conventional or digital) radio communications equipment, including a GPS subsystem. In order to route the data between the mobile terminals and AVL server, the AVL application uses digital radio and /or analog (conventional) networks, to locate the response vehicles and identify the best routes to get to the incident site.

### **2.1 The call handling process**

- a caller dials 112 to report serious accidents, resulting in human casualties.;
- the system identifies the caller's phone number;
- the caller's name and address is then determined by database automatic search (the same as in the European Union countries, USA and Canada), this being a measure needed to confirm call authenticity;
- the call taker requests from the caller information about the nature of the incident;

- all data will be transmitted to the Police, the Fire Brigade and Ambulance dispatcher, depending on the nature of the case (this operation will take 2-3 seconds);
- the dispatchers rapidly identify the means of response participating in the case resolution, using the AVL application (Automatic Vehicle Location);

## **2.2 What does 112 bring new?**

According to the law, confidentiality is peremptory for the personnel of the Unique National System for Emergency Calls.

Use of material and human resources in the emergency response is more efficient and represents a useful management tool in dealing with emergency situations. Thus, the response teams closest to the incident site will be able to arrive there in time to save human lives.

112 is a number used throughout the European Union, beneficial for tourists and foreign business people visiting Romania.

112 will enable the use of a single communication path simultaneously mobilizing all agencies providing emergency services.

All the premises are created to efficiently utilize the material and human resources in an emergency situation as to decrease the time of an intervention. This is accomplished by the uniqueness of the number and by simultaneous data transfer to the adequate emergency agencies.

The calls entering the 112 system are recorded.

The automatic emergency number and location identification allows swift identification of false and/or abusive calls.

## **2.3 The 112 call is universal and free of charge.**

112 calls are free of charge for any kind of telephone, public, fixed or mobile.

The subscribers dialling 112 do not pay extra taxes on the telephone bill.

## **2.4 The Public Safety Answering Points are permanently on duty, 24 hours a day, 7 days a week.**

The PSAP call taker will ask the caller certain questions regarding the nature of the emergency he is reporting and will determine which emergency agency can respond properly to the caller's needs.

If you are calling 112, you must announce:

- Where the emergency location is;
- Where you are;
- What telephone number you are calling from;
- What your name is;

The emergency call taker assesses the caller's emergency, depending on received information and reports them to the emergency agencies authorized in managing that problem. If the situation implies the intervention of all the agencies, the preliminary data are simultaneously reported in maximum 2-3 seconds.

After providing these data you must remain on line to be transferred to the emergency agency you need and receive the recommendations.

If the connection with 112 is interrupted, you should try again. Stay patiently on line and answer all questions; do not hang up until you are told to.

Only dial 112 if you have an emergency.

## **3. STATISTICS REGARDING THE EUROPEAN EMERGENCY NUMBER 112**

Based on the survey “The European Emergency Number 112” (No262), requested by the Directorate-General for Information Society and Media the report deals with the following aspects relating to the emergency number 112:

- Opinions about the usefulness of the European emergency number 112 and about facilitating access to it for people with disabilities
- Opinion about the adequacy of information on the European emergency number 112, and details about the actual information received about 112 and about other national emergency numbers
- Knowledge of 112 as an emergency number available from within one’s own country and when travelling to other EU countries
- Usage of the European emergency number 112 and a comparison with usage of other emergency numbers.

### **3.1 Usefulness of the European emergency number 112**

Over nine out of 10 EU citizens (94%) totally agreed, or tended to agree, about the usefulness of having an emergency number available anywhere in the EU. Respondents in the UK were again the least convinced about the value of such a number (87% totally agreed or tended to agree).

Nine out of 10 (89%) EU citizens agreed (they agreed totally or tended to agree) that access to emergency services via 112 for users with disabilities should be improved, but the individual country responses varied from 75% in the Netherlands to 97% in Greece.

### **3.2 Information about the European emergency number 112**

Just over six out of 10 EU citizens (63%) did not agree that people were adequately informed about the existence of the European emergency number 112. Only in three EU countries (Luxembourg, Romania and the Czech Republic) did the majority think the information was adequate.

The majority of respondents had not received information about the EU-wide emergency number or other emergency numbers during the last 12 months (69%, down two percentage points). Only one in five interviewees (21%) said they had seen or heard information about 112.

The proportion of respondents who said they had received information about 112 as the European emergency number in the past 12 months ranged from 7% in the UK to 60% in Bulgaria.

Those who have seen/heard about the European emergency number 112, four out of five (81%) named media outlets (television, radio, newspapers, the Internet) as their source of information. Nine percent reported telecommunications operators as their information sources.

### **3.3 Knowledge of the European emergency number 112**

The general public is still generally unfamiliar with 112 as the European emergency number. Only one in four interviewees (24%, up two percentage points) could spontaneously identify 112 as the number to call for emergency services anywhere in the EU. Many more citizens (45%, up four percentage points) said they would call 112 for emergencies within their own country.

Knowledge of 112, as the number to call in an emergency situation anywhere in the EU, still greatly depends on the respondent’s own country (from 3% in Italy to 58% in the Czech Republic). The proportion of respondents who mentioned 112 for emergencies within their own country ranged from 1% in Greece to 98% in Sweden.

It is still the case that having knowledge of 112 as an emergency number to call from one’s own country does not necessarily mean that respondents were also aware of this number as the European emergency number.

### **3.4 Experiences of calling emergency numbers**

A quarter of EU citizens were seen to have called an emergency number in the last five years. There were fewer of these calls addressed to 112 than to other national emergency numbers.

The last time they needed assistance, more than half of the respondents called a national emergency number (57%), and four in 10 (41%) called 112 for emergencies in their own country. Of the calls made to 112 in one's own country, 69% were calls in countries where 112 operates along with other emergency numbers, and 31% were calls in countries where 112 is the only/main emergency number.

The majority of the most recent emergency calls were made from a fixed-line telephone (53%).

A minority of the respondents who called emergency services experienced difficulties in establishing or maintaining the communication (7%, down one percentage point). Polish respondents were the ones that had most frequently encountered such difficulties (17%).

There was a low proportion of problems attributable to the telecommunications operators (1%), 3% of respondents got a busy tone or got no reply from the emergency service, and another 3% reported other problems.

Such communication problems were reported more frequently by mobile phone users (9%) than by fixed-line phone users (5%). The respondents who made an emergency call in another EU country were more likely, than those who made it in their own country, to have encountered technical difficulties.

Approximately three out of 10 (29%) respondents who called emergency services when visiting another EU country said they had language-related problems when communicating with the emergency services.

Respondents who made an emergency call with a mobile phone were less likely to provide the emergency services with the exact address of the emergency (83% compared to 94% for fixed-line telephone users).

Respondents who made an emergency call while visiting another EU country were less likely to be able to provide the emergency services with an exact address (70% for calls to 112 and 80% for calls to other emergency numbers vs. 87% -90% of those who called the emergency services in their own country).

Regarding the follow-up given to the call, in a large majority of cases an emergency unit arrived on the spot (83%, up two percentage points).

### **3.5 Adequacy of information about the European emergency number 112**

The majority of EU citizens disagreed that people were adequately informed about the existence of the European emergency number 112 (63%).

The highest proportion of respondents satisfied with the information about the European emergency number 112 was found in Luxembourg (70%). Only in three EU countries (Luxembourg, Romania and the Czech Republic) did the majority think the information received was adequate.

Despite Member States being obliged to inform citizens about the existence of 112, only one in five interviewees (21%) said they had received information about 112 as the European emergency number in the past 12 months. Sixteen percent of EU citizens said they had seen or heard information about the European emergency number 112, and an additional 5% reported having received information about the EU-wide number and other national emergency numbers.

Citizens of countries that joined the EU after 2004 were much more likely to have received such information about the EU-wide number for emergencies than the EU15 citizens: on average, 45% of the respondents from countries that joined the EU after 2004 had seen or heard something about 112 or about both the European emergency number 112 and other national emergency numbers, while only 15% of the EU15 respondents stated the same thing. Bulgaria (60%), Romania (57%) and Lithuania (50%) were the countries with the highest proportions who claimed they had seen or heard information about 112, or about both the European emergency number 112 and other national emergency numbers. Respondents in the UK, Slovenia, Ireland, Denmark, Greece, Italy and Germany (not more than one in 10) were the least likely to say they had received information about 112.

### **3.6 Calling the emergency services from another EU member state**

Although the 112 number is available in all Member States, the public is still generally unfamiliar with 112 as the European emergency number. Only one in four interviewees (24%, up two percentage points) could spontaneously identify 112 as the number to call for emergency services anywhere in the EU. The

majority of respondents (69%) said they did not know which number would enable them to call emergency services anywhere in the EU.

It is still the case that having knowledge of 112 as an emergency number to call from one's own country does not necessarily mean that respondents were also aware of this number as the European emergency number. Only 39% of respondents who reported that they would call 112 in the event of an emergency in their own country also knew that this number could be used to reach the emergency services anywhere in the EU. Knowledge of 112, as the number to call in an emergency situation anywhere in the EU, still greatly depends on the respondent's own country. While at least half of the respondents in the Czech Republic (58%), Luxembourg (56%) and Poland (50%) correctly answered that 112 was the telephone number that enabled them to call emergency services anywhere in the EU, the number 112 was practically unknown to interviewees in Italy (3% correctly stated the number), Greece (4%) and the UK (8%). It is worth noting that although the European emergency number 112 was recently introduced nation-wide in Bulgaria (September 2008), half (49%) of Bulgarian respondents were already familiar with 112 being the number that would enable them to call emergency services anywhere in the EU.

#### **4. CONCLUSIONS**

A single emergency number 112 that is accessible for all emergencies and to all people living and travelling in the EU is easy to remember. As such, promoting the use of 112 helps to save lives. As European citizens are increasingly travelling to other countries, for business or pleasure, there is a need for a single number, identical across the EU, to call in an emergency. Especially for travelers, safety in emergencies is the other side of the coin of the single market and the freedoms it offers.

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