



## EENA Operations Document

### **Multilingual Emergency Calls**

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## **ABSTRACT**

Dealing with calls to emergency call centres by people who do not speak the language of the country/region of the call takers constitutes a major challenge for the implementation of the 112 service across the EU. The present document analyses all methods available for ensuring that call takers can communicate with people speaking other languages, including the advantages and disadvantages of each method. The document also contains a brief description of some projects that have been practically implemented in this area.

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## 1 Introduction

Europe is constantly on the move, buzzing with a multitude of languages. There are 460 million international arrivals annually in Europe, according to the European Travel Commission<sup>1</sup>. Total arrivals of 460 million break down to travellers from:

- Europe (intra-regional): 340 million
- North & South America: 27.5 million
- Asia & the Pacific: 19.3 million
- Africa: 3.5 million
- Middle East: 3.2 million
- Unspecified: 6.8 million

With Europeans themselves making around 1.25 billion trips as tourists within the European Union (EU) every year, some will inevitably face an emergency (related to health, crime or other threat) along the way.

Apart from mobility related factors, the demand for multilingual services within the EU is formed in a significant manner by migration, as citizens of EU Member States become ever more mobile while the EU remains attractive to non-EU citizens. The International Organization for Migration (IOM) stated that there are more than 200 million migrants around the world today, while Europe hosts the largest number of immigrants, i.e. 70.6 million people (in 2005)<sup>2</sup>. More than 150 million EU citizens cross the internal EU borders for leisure, business or because they live in cross-border areas. According to the latest survey conducted by Eurobarometer, 53% of young Europeans are keen or more than willing to work abroad as expats in another European country, emphasizing the need to address foreign workers as multilingual service users.<sup>3</sup>

EU emergency response systems are under mounting pressure to respond to these and other challenges and the growing expectations related to the effectiveness and the accessibility of emergency services. The interface between those exposed to an immediate threat and in need of emergency services is an important front-line in this battle, while multilingual services are a key component in the available solution's portfolio. The strategic aim is that **any person dialling 112 should be able to access help without language being a barrier.**

The objective of this Operations document is to assemble all currently available information about the issue of multilingual 112 services and outline some of the 'best practice' approaches to the systematic user-focused development and provision of these services.

## 2 Abbreviations and glossary

Expat - An *expatriate* (in abbreviated form, *expat*) is a person temporarily or permanently residing in a country and culture other than that of the person's upbringing.

EU – European Union

EMS – Emergency Medical Service

USD – Universal Service Directive

VoIP – Voice over Internet Protocol

<sup>1</sup> Source: European Travel Commission, Fact sheet on tourism in Europe, 2010, UNWTO statistics

<sup>2</sup> Source: <http://en.wikipedia.org/wiki/Immigration>

<sup>3</sup> Source: [http://ec.europa.eu/public\\_opinion/flash/fl\\_319b\\_sum\\_en.pdf](http://ec.europa.eu/public_opinion/flash/fl_319b_sum_en.pdf)



PSAP - Public Safety Answering Points

ET 2020 - Education and Training 2020 - a new strategic framework for European cooperation in education and training.

SLA – Service-level agreement

Translation – spoken word or text which is translated or the process of being translated from one language to another

Ad hoc translator – specialized or dealing with a specific subject, respectively not available on a regular basis, appearing spontaneously in a given situation

Professional translator – translators must be able to read, understand and retain somebody else's ideas, then render them accurately, completely and without exclusion, in a way that conveys the original meaning effectively and without distortion in another language.

Interpreting or "interpretation" is the facilitation of oral or sign-language communication, either simultaneously or consecutively, between two, or among more, speakers who are not speaking, or signing, the same language.

*NOTE: A translator will translate the written/spoken word with an exact (or near to exact as the language allows) translation of what has been said. An interpreter will interpret what has been said and provide their interpretation (which may unintentionally have a different meaning) of what has been said (asked and answered).*

Arma dei Carabinieri - the national gendarmerie of Italy, policing both military and civilian populations, is a branch of the armed forces.

Volunteer - an unpaid person who is trained to assist in implementing ongoing program activities on a regular basis under the supervision of a staff person in areas including health, education, transportation, nutrition, and management.

### 3 Legislation<sup>4</sup>

**July 1991:** Adoption of the Council Decision on 112. Member States were requested to introduce the single European emergency number 112 in order to make emergency services more accessible, especially for travellers. The single European emergency number 112 operates alongside the existing national numbers in most countries and will not replace existing national emergency numbers.

**March 2002:** Adoption of the Universal Service Directive. The Directive further detailed the following requirements concerning 112 services:

- **Free of charge:** Member States must ensure that users of fixed and mobile telephones, including payphones, are able to call 112 free of charge.
- **No discrimination:** 112 calls must be appropriately answered and handled, irrespective of whether 112 or other national emergency numbers are dialled. Some Member States (Sweden, Denmark and The Netherlands) have introduced 112 as their main emergency number, while in most Member States 112 operates alongside national emergency numbers.
- **Caller location:** Member States must also ensure that emergency services are able to establish the location of the person calling 112. The ability to locate the caller in case of an emergency may be of great significance in a situation where the person is unable to state his or her location, which can happen particularly when calling from mobile phones or while travelling abroad.
- **Raising awareness:** all EU Member States must inform their citizens on the existence of 112 and in which circumstances they should call it.

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<sup>4</sup> Source: [http://ec.europa.eu/information\\_society/activities/112/rules/index\\_en.htm](http://ec.europa.eu/information_society/activities/112/rules/index_en.htm)



**July 2003:** Adoption of the Commission Recommendation on caller location. The European Commission recommended that Member States should implement the “push” method rather than the “pull” for the provision of caller location information.

**July 2009:** The new Roaming Regulation, which entered into force in July 2009, provides that citizens using their mobile phone when travelling to another EU Member State shall receive an SMS with information about the European emergency number 112.

**December 2009:** The new EU telecoms rules will ensure that European citizens gain better access to emergency services by extending the 112 access requirements from traditional telephony to new technologies (such as VoIP), strengthening operators' obligation to provide information about caller location to emergency services and improving access to 112 for people with disabilities.

**July 2011:** European Parliament issues resolution of 5 July 2011 on universal service and the 112 emergency number<sup>5</sup>.

Several articles of the Charter of Fundamental Rights of the EU concern specifically the implementation of 112 namely articles 2 (Right to life), 3 (Right to the integrity of the person), 6 (Right to liberty and security), 26 (Integration of persons with disabilities), 35 (Right to health care).

Member States are responsible for the organisation of the emergency services and their response to 112 calls. The EU legislation requires Member States to ensure that any citizen in the EU should be able to reach emergency services free of charge when dialling 112.

#### 4 Statistics and research

The demands arising from the 23 official languages of the EU, mobility, migration and other relevant factors, like the fact, that only 1/3 of Europeans are able to speak in English, form a natural and steadily growing demand for multilingual services within the entire life-cycle of emergency management, but especially on the front-line of interaction with people experiencing an emergency, at the Public Safety Answering Points (PSAPs) that process the emergency calls.

When calling 112 for help abroad, 28% of callers have language problems<sup>6</sup>, despite the fact that information provided by 21 Member States indicates that their 112 emergency centres should be able to handle 112 calls in English (12 Member States in German and 11 Member States in French). Disabled callers have limited or no means of using other than voice based services in a majority of EU Member States.

In order to guarantee accessible service to all people in emergencies (in harmony with European Commission Recommendation of 11/02/2009), and to improve response speed and efficiency of service, it is becoming crucial to deliver multilingual call-handling. While the benefit to users is obvious, there are also system-based arguments in favour of the development of this type of service, one of the most important of which is the cost-benefit ratio.<sup>7</sup>

The current state of play (2011) in relation to handling emergency calls in foreign languages:

<sup>5</sup> Source: <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2011-0306&language=EN>

<sup>6</sup> Source: <http://gozonews.com/7685/commission-says-eu-single-emergency-number-must-get-multilingual/>

<sup>7</sup> Source: COCOM10-38 FINAL  
[http://147.67.243.36/Public/irc/info/cocom1/library?l=/public\\_documents\\_2011/cocom10-38\\_finalpdf/ EN 1.0 &a=d](http://147.67.243.36/Public/irc/info/cocom1/library?l=/public_documents_2011/cocom10-38_finalpdf/ EN 1.0 &a=d)



Among the 26 Member States, and Norway, which provided information on the language issue, 23 Member States (apart from the United Kingdom and Ireland) reported on the ability of their PSAPs to handle directly **112 calls in English** (Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Estonia, Greece, Spain, France, Cyprus, Italy, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Romania, Slovenia, Finland and Sweden) plus Norway.

Out of these Member States, Belgium, Bulgaria, the Czech Republic, Germany, Spain, Lithuania, Austria, and Poland indicated that English may not be available in all cases in all PSAPs and its availability depends on the linguistic resources of the respective PSAPs; transfer to other PSAP may also be available. Slovakia pointed out that calls in English can be forwarded for processing to another (central) PSAP where competent staff is available. In France recourse to interpretation is available.

**112 calls in French are answered in 13 countries** (apart from France and Luxembourg) - Belgium, Bulgaria (by call transfer to another PSAP, if necessary), the Czech Republic (language support), Germany (subject to availability/transfer in the border region), Greece, Ireland Italy, Romania (direct calls), Spain and Norway (may not be available in all PSAPs), the Netherlands (most of the time), Slovakia (by transfer), Finland (by involving interpretation service).

**112 calls in German** are answered in 13 States (apart from Germany, Austria and Luxembourg) – Belgium, Bulgaria, Hungary, Italy, the Netherlands and the Czech Republic (by call directly or by transfer to another PSAP, if necessary), Spain, Lithuania, Norway (may not be available in all PSAPs), Poland (26 PSAPs can handle such direct calls), Romania (by transfer), Slovakia (by transfer) and Finland (by involving interpretation service).

**112 calls in Italian** are answered in four Member States (apart from Italy) – Czech Republic (language support), Spain (some PSAPs), Slovenia and Romania (by call transfer to another PSAP, if necessary), whereas **Russian** is available at least through interpretation services in eight Member States (the Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, Slovakia and Finland).

**A number of Member States have indicated the ability of their PSAPs to answer calls in the languages of their neighbouring countries.** Thus, calls in Polish can be handled by PSAPs in Lithuania, Slovakia (in PSAPs of certain areas), Germany (along the Polish border), Ireland; calls in Hungarian – in Romania (by call transfer to another PSAP, if necessary), Slovenia (in PSAPs of certain areas) and Slovakia (in PSAPs of certain areas); calls in Czech - in Slovakia and Poland (4 PSAPs); calls in Slovak – in Poland (3 PSAPs), calls in Italian – in Slovenia (in PSAPs of certain areas) and Romania (by call transfer to another PSAP, if necessary), calls in Portuguese – in Spain (may not be available in all PSAPs), calls in Slovenian – in Italy and calls in Finnish - in Estonia. Languages of the neighbouring EU countries are also catered for by German and Hungarian PSAPs in border areas. Furthermore, in Italy and Romania the PSAPs can handle calls also in Spanish (by call transfer to another PSAP, if necessary). Relevant information or facility is not yet available in Portugal.

The emergency response centres (ERCs) in Finland offer multilingual services for emergency calls. Swedish and English are dealt with by multilingual calltakers in the ERCs, while additional languages, especially Russian, are handled via conference calls with a professional translating service.<sup>8</sup>

The United Kingdom and the region of Madrid (Spain) indicated that their PSAPs can have recourse to interpretation services covering 170 languages; Swedish PSAPs can have recourse to an interpretation service covering several languages, the same as French PSAPs.

<sup>8</sup> Source: <http://psc.apcointl.org/2011/02/24/emergency-calls-in-finland>





Finally, a number of Member States indicated that the call takers in PSAPs have at their disposal **other means to deal with foreign language calls** such as Czech Republic (linguistic support software), Poland (Multicom 112 programme), and Belgium, Slovakia (basic conversation phrases). Italy indicated that it has set-up multi-language 19 'operation rooms' managed by 'Arma dei Carabinieri' located in the main towns and tourist sites, which handle calls in foreign languages also by taking up calls transferred by other PSAPs.

Additional information:

The only independent study evaluating multilingual answering in one EU Member State, Portugal, revealed that 29% of calls made in English and 20% of calls made in French did not receive the appropriate help or were not assisted.<sup>9</sup>

### Sign language users

Detailed statistics about the number of sign language users in the EU are not available, but the Eurobarometer survey carried out in 2001 found that 0.2 percent of respondents knew a sign language. Extrapolated across the EU, this would mean there are around 900,000 sign language users, though these figures should be treated with some caution due to the small size of the sample. Other estimates suggest that one person in a thousand uses a national sign language as a first language, equivalent to around half a million people in the EU. As well as deaf people, for whom a sign language may be their mother tongue, sign language speakers include the hearing impaired, their friends and family, and others who use sign language as a second or third language.<sup>10</sup>

According to the European Commission, the European emergency number 112 is currently not accessible to the majority of disabled people unable to use voice based services. Only 7 countries were reported to have implemented an accessible 112 for people with disabilities.<sup>11</sup> In 2009, the amended Universal Service Directive invited the Member States to ensure an equivalent access to 112 for all citizens. EU countries are now looking into efficient and reliable solutions to comply with EU legislation and improve inclusion of citizens with disabilities.<sup>12</sup>

### Relevant research<sup>13</sup>

It is evident that there is a paucity of evidenced based research looking at the equality of service provide to those who do not speak the language of the country they are residing in. There is even less evidence based research identifying the quality of care provided through telemedicine for those who do not speak the language of the country where they are resident. Telemedicine is the use of telecommunication and information technologies in order to provide clinical health care at a distance. It helps eliminate distance barriers and can improve access to medical services that would often not be consistently available in distant rural communities. It is also used to save lives in critical care and emergency situations<sup>14</sup> and that is where the parallel arises to 112 call management, which includes not only call-taking and dispatch, but also supporting callers, facing an emergency, by providing guidance and advice in a critical situation.

The ability to "guide" a caller in a critical situation towards eliminating or decreasing the risk he/she or the persons around are facing in a given language is a key (knowledge-based) skill and also a criterion of the "quality of provided service" to be included in the preparation of the (multilingual) call-talkers' procedures for handling multilingual calls and the system of evaluation.

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<sup>9</sup> Source: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/240&format=HTML&aged=0&language=EN&guiLanguage=en>

<sup>10</sup> Source: [http://ec.europa.eu/languages/languages-of-europe/sign-languages\\_en.htm](http://ec.europa.eu/languages/languages-of-europe/sign-languages_en.htm)

<sup>11</sup> Source: [http://www.reach112.eu/preview/en/registration/issue\\_1.html](http://www.reach112.eu/preview/en/registration/issue_1.html)

<sup>12</sup> For more information on related issues please refer to the EENA Operations document on "112 Accessibility for people with disabilities".

<sup>13</sup> Resume of research outputs kindly provided by Andy Heward.

<sup>14</sup> Source of definition: wikipedia



The work that has been undertaken tends to look at the satisfaction of healthcare users, their access and whether ad-hoc or professional interpreters have been used and the resulting quality of care. The following information provides an insight of the available (research) evidence in relevant topics, provided to support the EENA Multilingual 112 work and influence recommendations for EU requirements.

Overwhelmingly, medical respondents felt that interpreters had a positive effect on their ability to provide healthcare to immigrants (Bischoff & Hudelson 2010) and 99% rated "somewhat true or perfectly true" the statement that the patient-provider understanding is improved with the use of an interpreter (Bischoff & Hudelson 2010).

Karliner et al 2007 identified through a literature review, that the use of professional interpreters is associated with improved clinical care more than in the use of ad-hoc interpreters. Prince and Nelson 1995 identified that major errors occurred in 6 visits (out of 34), of which five had an ad-hoc interpreter whilst in cases with professional interpreters there were no major errors (46%) Flores et al 2003 identified that professional interpreters made fewer clinically significant errors than ad-hoc interpreters.

Overall, Karliner et al 2007 found that the studies they reviewed found a positive impact on clinical care for patients with language barriers and demonstrated that the use of professional interpreters is associated with a decrease in disparity between patients with a foreign language, when compared to patients receiving care from language concordant clinicians.

Interestingly, in terms of medical discussions, Diamond et al (2009) identified, that bilingualism is insufficient to ensure adequate interpretation skills. Garon et al report that, although ad-hoc interpreters were commonly used, participants had concerns about confidentiality, incompleteness and inaccuracy of interpretation. Physicians also had concerns about increased liability. Metzger (2003) identified, through focus groups involving 122 subjects, that patients preferred trained professional interpreters over family members due to issues of accuracy and family dynamics.

One of the conclusion is, that future efforts should be focused on sensitizing health (and other rescue services professionals including PSAP Call Takers) to the problems associated with the use of ad hoc interpreters (Bischoff & Hudelson, 2010).

## **5 Procedure and solutions**

In most countries, robust practices have evolved to enable access to appropriately equipped services in the event of fire, medical or other emergency or the presence of police being required. In order to provide effective equality of access, all these services including 112 need to address significant gaps in access to emergency services for people with special communication needs, by proposing and implementing effective solutions, addressing the needs and limits of users.<sup>15</sup>

In order to explore the key issues associated with emergency services access in the context of procedures and solutions, specific areas that require attention include the definition of user needs, reflecting on the personal situation of specific target groups and the context of emergency services provisions, including their structures, procedures and relevant legal requirements. A particular aspect to be considered is the availability of alternative means of communication including options available for multilingual communication, interoperability and the identification of obstacles to the achievement of accessibility of services for all potential users, while in the context of service providers an analysis of the essential features of these services, their staffing and their training resources should be conducted.

<sup>15</sup> Source: [http://www.reach112.eu/ressource/static/files/REACH112\\_D2.1\\_Current\\_status\\_of\\_TC\\_systems\\_v2.0.pdf](http://www.reach112.eu/ressource/static/files/REACH112_D2.1_Current_status_of_TC_systems_v2.0.pdf)



In case of emergency, calling the 112 and getting an appropriate service depends on several factors, namely:

1. Knowing which emergency number to call;
2. Availability of a telecommunication network connection;
3. Obligation and possibility to receive an answer to the emergency call;
4. Obligation that the emergency call will be handled appropriately. This issue covers the availability of multilingual support, caller localisation, the protocol of interaction with the caller, the expedition of help, the obligation for a maximum response time of the emergency services and the profile of helpers and means which will be made available;
5. Obligation for the implementation of quality standards and for the systematic development and periodic evaluation of the overall 112 service chain<sup>16</sup>.

### Main issues for response services

- Accessibility of service in a form relevant to the user (for example an alternative service/communication channel for disabled users unable to use voice-based services or a service tailored to meet the needs of callers not speaking the national language/s)
- Response speed
- Scalability and forecasting
- Ensuring adequate information/data flow throughout the entire 112 service chain
- Cost
- Efficiency (tools for audit/quality control)

### Main issues for users

- Accessibility of service and effective support in dealing with the emergency in a language they can understand

### Benchmarking - issues to be considered

In order to offer multilingual 112 service, it is important to keep in mind the following aspects:

- Speed of service provision (in case of emergency, every second is critical)
- Scalability (during events, holidays)
- Number of languages in demand (can change very fast)
- Forecasting language needs (monitoring)
- Efficiency (ex: ability for local agent to understand)
- Cost
- Privacy/Ethics

### Procedure to handle multilingual calls

The process used in the treatment of a multilingual call involves, in addition to the standard 112 service chain<sup>17</sup>, the following tasks:

- 1) Identification of the caller's language, potentially with the support of software to assist the recognition of the language, such software is currently generally not available in the sector,  
NOTE: Czech Republic indicates using linguistic support software<sup>18</sup>
- 2) Processing the call (e.g. by a multilingual call taker, forwarding call to other emergency service or making contact with the interpreter)

<sup>16</sup> For more information consult "EENA Operations Document – 112 Service Chain Description"  
<sup>17</sup> For reference see EENA Operations Document - 112 service chain description  
<sup>18</sup> Source: COCOM10-38 FINAL  
[http://147.67.243.36/Public/irc/info/cocom1/library?l=/public\\_documents\\_2011/cocom10-38\\_finalpdf/EN\\_1.0\\_&a=d](http://147.67.243.36/Public/irc/info/cocom1/library?l=/public_documents_2011/cocom10-38_finalpdf/EN_1.0_&a=d)



3) Immediate translation of collected data (before it is processed based on standard operation procedures in the protocols respectively passed on to involved rescue service providers).

### **General overview of the solutions available:**

1. Forward the calls to other emergency services or make a 3-way conference call with national or foreign emergency services
2. Multilingual call-taker
3. External solutions – third party service
4. Volunteer translator schemes

It should be noted that these solutions can be combined.

#### **1. Forward the calls to other emergency services**

Forwarding a call to another emergency service is a solution that has to be based on well established procedures, embedded in service chains of all potential partners involved, in order to be effective. Some of the tools that can serve this purpose include an agreement, signed between PSAPs able to provide services in specific languages, an established protocol of when and where to transfer calls, as well as systematically making human resources available (prepared) for answering calls from abroad.

#### ***The call-taking procedure:***

1. The 112 call-taker receives a call from a limited language speaker
2. The 112 call-taker forwards the call to another emergency service (in the same or in another country)
3. The 112 call-taker from the other emergency service manages the call
4. The 112 call-taker from the other emergency service transfers the information to the original 112 call-taker

#### **Advantages**

- If a call taker in a given language is available, there won't be any extra cost and the provision of appropriate response is more likely

#### **Potential disadvantages**

- It might be difficult to obtain the desired quality of call processing by another institution/service which may not obtain the information required to elicit the appropriate response.
- It may be slow to forward the call to another call taker, then to transfer and distribute information through other emergency services involved.
- Call-taker is tied up on the call for prolonged periods of time.
- Forwarding emergency calls to another country is currently not realistic, in many cases due to institutional and procedural differences especially the absence of interoperability of systems and knowledge of which PSAP deals with which area within Europe. The context of a call can be critical to understand the emergency and this might cause a problem in forwarded emergency calls.
- The definition of an emergency differs from region to region and country to country.



- Need for agreements with a lot of countries/organisations to achieve multilingual answering and definition of standard operation procedures in order to establish interoperability and coverage of the entire service chain.
- Ability to transfer metadata accompanying the call (caller location info etc.) in the process of forwarding dependent on the interoperability of systems, which is currently limited.

## **2. Multilingual call-taker**

The multilingual 112 call-taker is able to speak several languages and handles the calls made in these languages.

### ***The call-taking procedure:***

1. The 112 call-taker receives a call from a limited language speaker.
2. The 112 call-taker handles the call in the (preferred) language of the caller.

### **Advantages**

- In case of a local call taker, local knowledge as well as understanding of contexts (social, geographical, etc.) can be an asset.
- Ability to cover local minority languages and/or dialects.
- Fastest solution: the call-taker answers in the preferred language directly and is able to process the information for further use in the desired form.

### **Potential disadvantages**

- Bilingualism does not necessarily equal professional translation.
- Cost implications of hiring bilingual staff who could earn more elsewhere in another industry.
- Difficulty to hire call takers speaking many languages with the required language competency.
- Accuracy can be low if call taker is not really fluent in the foreign language.
- Hard to cover large number of languages.
- Evaluation of level of understanding and training to maintain active level of language skills might be necessary.

It is commonly assumed that any bilingual individual is able to produce satisfactory or even high-quality translations simply because he/she is a fluent speaker of a second language. However, this is often not the case. Because of the very nature of the different skills that each possesses, bilinguals and translators are not equally prepared to perform translations, as the ability, skill and even the basic mental processes required for bilingualism are fundamentally different from those required for translation.<sup>19</sup>

Bilingual individuals are able to form their own thoughts and ideas and express them orally in two different languages, their native language and a second language, sometimes well enough to pass for native speakers in their second language. However, some persons will have a native command of two languages but prove inept at translating even simple sentences and this has to be taken into account when preparing multilingual 112 call-takers for such a role.

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<sup>19</sup> Source: Albert Kadosh, Translation & Bilingualism 2007, p. 1.



Translators must be able to read, understand and retain somebody else's ideas, then render them accurately, completely and without exclusion, in a way that conveys the original meaning effectively and without distortion in another language.<sup>20</sup>

### **3. External solutions - third party service**

External solutions also have to be based on well established procedures, embedded in service chains off all potential partners involved, in order to be effective. The general framework can be defined based on a contract between the PSAP and an external service provider, defining the procedures, requirements on accessibility, availability and quality of services, rules for the protection of information and data shared and other aspects key to the service provision.

#### **The call-taking procedure:**

1. The 112 call-taker receives a call from a limited language speaker
2. The 112 call-taker place the call on hold
3. The 112 call-taker dials the interpretation service
4. An interpreted three-way conference starts between the caller and the 112 call-taker

#### **Advantages**

- Local call taker speaks directly with the limited language speaker thanks to over-the-phone interpretation
- SLA's in place to ensure timeliness, language availability etc
- 24/7/365 availability
- Many languages can be supported (up to 170)
- Accuracy of foreign language interpretation of high-quality in case of professional interpreters
- Easier to manage with EU wide recommendations

#### **Potential disadvantages**

- Generally requires precise recognition of language –but most experienced call takers are able to indicate the language. If not, the language line operators are often able to illicit the dialect or region if needed
- Additional costs
- Takes few seconds to add the interpreter to the call (but balanced against the delay during which it is not possible to understand the caller)
- Privacy/ethics issues since the emergency call passes through external organisations – dealt within the SLA and the anonymity of the caller to the interpreter

### **4. Volunteer translator schemes**

Volunteer schemes represent a unique potential, especially when other resources are limited. To set up a volunteer programme, it is necessary to dedicate special attention to the preparation and management of volunteers (creating a "back-office" responsible for planning of their involvement,

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<sup>20</sup> Source : Albert Kadosh, Translation & Bilingualism 2007, p. 1.



education and support, solving problems arising in the course of realisation of their service etc.) In some countries (for ex. Slovakia), there are laws defining general frameworks for permanent or semi-permanent volunteering structures, that address their preparation, insurance, compensation of costs related to the provided services etc., which have to be respected, when setting up a volunteer scheme.

In order to run an effective volunteer program in any context, including the use of volunteers in 112 translation schemes, it is crucial to design a comprehensive volunteer program tailored to the needs of the organisation to be supported, determining the needs to be addressed, defining volunteer tasks, addressing issues of preparation, evaluation, motivation of volunteers, as well as issues related to the involvement in the service incl. issues related to availability, planning, supervision and protection of shared information and data<sup>21</sup>.

#### **The call-taking procedure:**

1. The 112 call-taker receives a call from a limited language speaker
2. The 112 call-taker place the call on hold
3. The 112 call-taker dials the interpretation service based on volunteers
4. An interpreted three-way conference starts between the caller and the 112 call-taker

#### **Advantages**

- Local call taker speaks directly with the limited language speaker thanks to over-the-phone interpretation.
- Many languages can be supported, including minority languages and local dialects
- High motivation, socio-cultural sensitivity.

#### **Potential disadvantages**

- Availability
- Difficulty to find volunteers with sufficient level of proficiency
- "Limited liability" for the accuracy/quality of service
- Takes few seconds to add the interpreter to the call
- Privacy/ethics issues.

## **6 Technology**

### **Technology solutions that can help:**

- Implementation and management of conference calls (for example enabling an inclusion of a translation service provider), by using a common feature of the tool of phone integrated communication platform,
- Relay structures supporting access to (external) translation services,
- Databases with structured information supporting operators and online phrasebooks.
- Tools supporting the identification of language (e.g. country flag in Bulgaria) and translation,

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<sup>21</sup> Source: Implementing & Managing An Effective Volunteer Program, 2003, J. Christopher Watkins & Janet Buckley, Training & Technical Assistance Services



- Multilingual protocols included in integration platforms (central software solution)
- Virtual language learning tools for operators, supporting their language skills development<sup>22</sup>
- Phrasebooks and electronic translation tools.

Technology solutions for the provision of services ensuring accessibility of 112 services to people with disabilities, including functional requirements, are discussed in detail in the EENA Operations document on 112 Accessibility for people with disabilities.

## 7 Recommendations

Calls to the 112 should be answered in several languages, taking into account the main languages spoken by the inhabitants and/or the tourists visiting the region covered by the 112 Centre.

A monitoring of the languages spoken in the region (inhabitants/tourists) should be conducted regularly as a precondition for effective forecasting needs and structuring services. Additional solutions should also be available to respond to callers speaking other languages and/or unable to use voice communication.

In order to guarantee the necessary quality of service and depending on the chosen solution, it is also important to:

- Establish clear procedures for handling multilingual calls ensuring that any processes used in this context is defined within an internal procedural document. In any call, where the language used is not understood by the call taker, a translation process as opposed to an interpretation process is used, when needed.
- Ensure that, in case of external translation services, a formal SLA is documented between parties with regards to service expectations, timeliness, access, scalability, expected access to other languages, cost and privacy as a minimum.
- Ensure that ad hoc interpreters are not used due to skill decay, unfamiliarity with 112 terminology (EMS, Police, Fire) and awareness of the need for an exact translation of the stated question and the provided answer instead of an "interpretation" of the question and answer.
- Establish a way to quickly and accurately locate the multilingual calls to ensure that the first responders can be sent to the location of the caller – regardless of whether or not the caller can be understood.

Particular attention is to be paid to service provision in holiday periods during which tourists are most numerous and statistics show peaks for example in road accidents.

Call takers from ethnic (linguistic) minorities, who tend to be bi-lingual can be a very valuable human resource and hiring of multi-lingual staff if possible, is also a recommendable policy.

Language training supporting acquisition of active language skills by PSAP and rescue services staff, focused on emergency management related vocabulary and communication, as well as specific skills in the identification of oral language. The Council Conclusions on a strategic framework for European cooperation in education and training ("ET 2020")<sup>23</sup>, adopted in May 2009 set four strategic objectives: making lifelong learning and mobility a reality; improving the quality and efficiency of education and training; promoting equity, social cohesion and active citizenship; enhancing creativity and innovation, including entrepreneurship,

<sup>22</sup> Source: [www.multicom112.org](http://www.multicom112.org)

<sup>23</sup> Education and Training 2020 - a new strategic framework for European cooperation in education and training that builds on its predecessor, the "Education and Training 2010" (ET 2010) work programme. It provides common strategic objectives for Member States, including a set of principles for achieving these objectives, as well as common working methods with priority areas for each periodic work cycle.





at all levels of education and training. All of these are relevant to the development of language training projects and programmes in the segment of emergency management.

- Exploration of opportunities in the area of outsourced translation services as an option.
- Definition of a policy for multilingual alerting at PSAPs, resp. integration of multilingual alerting into the communications strategy in case of large scale emergencies.
- Personalised (multilingual) Emergency Response Protocols

Introduction of standards to enable the establishment of a pan-European, multilingual, accessible and efficient reverse 112 systems for alerting citizens about imminent or developing emergencies.

In general, it is recommended to establish a system for recognizing "country codes" corresponding to the GSM number of the caller. This system is used in Bulgaria and can instantly know the affiliation of the mobile phone number and automatically transfer the call to the call taker who speaks the language defined in the system.

## 8 EENA Requirements

Calls to the 112 should be answered in several languages, taking into account the main languages spoken by the inhabitants and/or the tourists visiting the region covered by the 112 Centre. Additional solutions should also be available to respond to callers speaking other languages and/or unable to use voice communication.

Requirements	
Availability of a solution	Availability of a solution for communication with users not speaking the primary languages of the 112 service.
Statistics	A monitoring of the languages spoken in the region (inhabitants/tourists) shall be conducted regularly.
Procedures	Availability of established procedures to identify languages spoken and to manage calls in other (than national) languages.
Availability of multilingual service	Based on 24h/365 days.
Reliability / Availability	Services must perform consistently and precisely and must be usable with high confidence.



## **ANNEX Implementation in different countries**

### **Brussels' Multilingual 112 Pilot Project – A volunteers based approach**

#### **Best practices and trial outcomes**

The pilot project in Brussels pointed out the following:

#### **Case of the device**

Given the number of calls involved, it is desirable to centrally manage the device (from the PSAP) and provide service to others, organising the conference directly with the interpreter and/or serving as relay structures for involved rescue services. From an operations perspective, it is useful to be limited to a realistic number of languages.

#### **Rapid implementation of the device**

The device is expected to choose a contact of the appellant and the interpreter in a time gap (as short as possible), otherwise the caller hangs up. It loses efficiency in the recall of the caller. This device could profitably set up a system to call interpreters in a cascade to ensure a response as quickly as possible.

#### **Language identification of the caller**

No system of recognition of the caller's language was used in Brussels during the pilot period. This posed fewer problems than expected because of the operation with a limited list of languages. Recognition problems have, however, emerged between Russian and Polish languages.

One of the possible solutions in the context of language identification could be a dialect recognition software, running in the background of the application. Unfortunately, such software that could be used in emergency situations is not readily available at the moment.

The experience of the Brussels pilot project points rather towards an establishment of a specific training program for operators. This training should focus on the identification of oral language along the following tracks:

- The recognition of intonation, melody-specific language recognition,
- The phonetic feature of the source languages,
- Using a thematic lexicon (phrasebooks) related to emergencies.

In general, it would be recommended to establish a system for recognizing "country codes" corresponding to the GSM number of the caller. This system is used in Bulgaria and can instantly know the affiliation of the mobile phone number and automatically transfer the call to the call taker who speaks the language defined in the system.

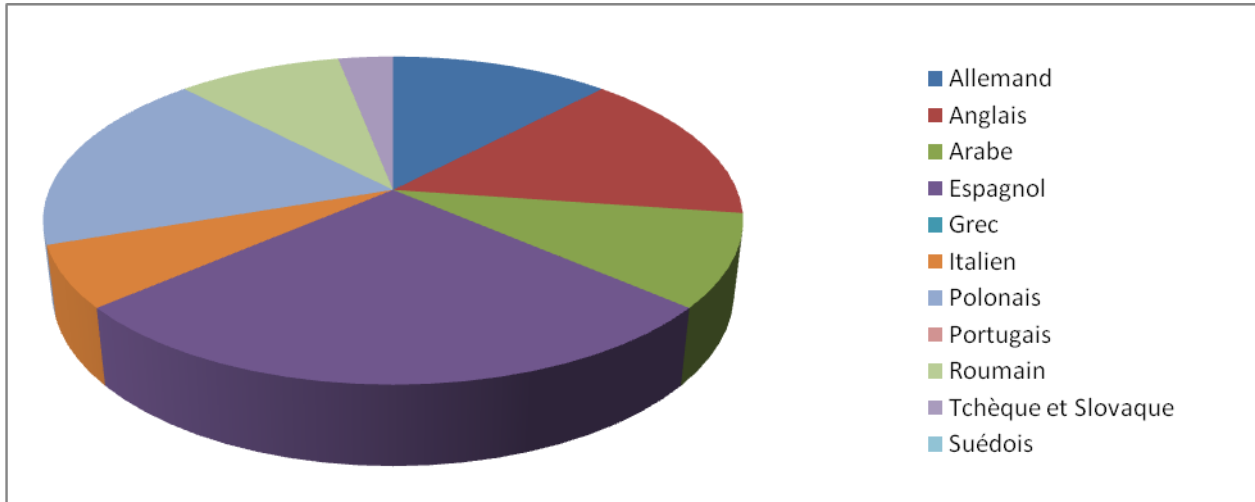
A local project in Brussels Region to improve multilingual answering, involving the collaboration of:

- Brussels 112 Centre
- EENA
- Volunteer interpreters from the EU institutions

For more info see link <http://www.renouveau-democratie.eu/2010/02/multilingual-112-in-brussels-progress-achieved/>

Project started early 2010 and ended in June, including 3 months with real 112 calls and interpretation in 11 Languages: German, English, Spanish, Portuguese, Polish, Romanian, Czech, Slovak, Italian, Greek, Arabic

Structure of emergency calls (Brussels) based on language:



Key features of the service:

- An analysis of the prior foreign language calls and of the languages spoken by Brussels population
- Volunteer interpreting
- Simple use of mobile phone numbers
- Interpreters available on duty during a certain period (e.g. 1 week)
- A special number so that interpreters know that the 112 centre is calling
- Very limited cost

33 multilingual calls were handled - most of them not including calls in English spoken by many call-takers

Outcomes:

- Callers were satisfied or very satisfied with the response
- Interpreters feel useful to contribute to save lives, in particular to help their « compatriots »
- Call-takers are glad to use this service that helps them manage the calls
- Other 112 centres want to use the service
- It brings different communities closer – in this case, Brussels region and the EU officials living in Brussels

Next steps:

- Volunteers or not?
- Economies of scale
- Language identification
- Conclusion:
- Volunteer interpreters are everywhere in Europe (embassies, language teaching, etc...)
- Is it that we « can't » or that we do not really try to have it?

Using as sole criterion the quantitative aspect (i.e. the number of calls) loses its meaning when listening to records of the interventions. At each call, the use of an interpreter served to resolve a deadlock simply due to



the impossibility of communication. Impressions of users (callers, operators and interpreters) are extremely positive and this can be felt easily when hearing at the recordings of the interventions. The callers are satisfied (and sometimes amazed) at the quality of the response to the 112 call centre. The interpreters feel useful and valued for the provided service. The operators reported to be are happy about having a tool allowing them to exercise their role as a public service.

## **Project Multicom – Help for PSAP operators**

### **Project Information**

Title: Multilingual communication with emergency-call-centres - Foreign language training to answer and handle the single European emergency call number 112

Project Number: D/01/B/F/LA-112 444

Year: 2001

Project Type: Language Competence (2000-2006)

Country: DE-Germany

Status: completed

Basic information:

Summary: The Vfdb (Vereinigung zur Förderung des deutschen Brandschutzes e.V.) has been contracted by the German National Agency in the context of the Leonardo-da-Vinci Programme for the project described hereafter. The co-ordinator of the project was Dr. Dieter Nuessler, Feuerwehr Aachen. Partners in the project came from Belgium, Germany, France, Greece, Spain and the United Kingdom.

Summary of the project:

Since the implementation of the single European Emergency Call Number by EU Council Decision (91/396/EEC) in 1991 Member States have implemented the technical means to assure that travellers in the case of an emergency can call for help throughout the EU by using the same call number 112. The EU gives high priority to make the single emergency call number known throughout Europe which will result in a more intensified use by the EU-citizens. This will inevitably raise the demand for foreign language competence in the emergency call centres in the future. It must be stated that it is not possible to meet the requirements with conventional language training.

The project was aiming to develop modern tools for language training, which will enable control room operators to achieve a sufficient linguistic competence in a foreign language.

The project was structured as follows:

1. Analysis of the necessary linguistic competence and the related knowledge of basic and advanced vocabulary
2. Development of the didactical concept for the self-tuition tools
3. Development of a CD for autonomous training
4. Development of an INTERNET environment for the on-line training



## 5. Field test of the developed learning tools on the final user level

### Description of product:

The self-tuition CD contains the vocabulary, idioms typical for emergency calls and selected dialogues in the languages German, English, French, Spanish, Flemish (Dutch) and Greek.

The learning modules are subdivided in:

Call Handling, Fire, accident, medical emergency assistance, and police.

In the modules the degree of difficulty is graduated as A1, A2 and B2 in accordance with the European reference framework for languages.

Learning concentrates on the skills: speaking, understanding and communicating. Reading and writing is only of subordinated importance for the user group (planning manager in emergency centres).

Target group: Emergency Call Dispatcher

Result: [www.multicom112.org](http://www.multicom112.org)

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