



EUROPEAN COMMISSION

Information Society and Media Directorate-General

Electronic Communications Policy

Implementation of Regulatory Framework (I)

Brussels, 24 March 2009

DG INFSO/B2

COCOM09-11 FINAL

COMMUNICATIONS COMMITTEE

Working Document

**Subject: Implementation of the European emergency number 112 –
Results of the second data-gathering round (January 2009)**

This is a Committee working document which does not necessarily reflect the official position of the Commission. No inferences should be drawn from this document as to the precise form or content of future measures to be submitted by the Commission. The Commission accepts no responsibility or liability whatsoever with regard to any information or data referred to in this document.

European Commission
Information Society and Media



Introduction

This Report analyses the information submitted by Member States in response to the second COCOM Questionnaire (document [COCOM08-37 Final](#)) on the implementation of the European emergency number 112¹. The purpose of this data gathering-exercise on the implementation of 112 is to provide an overview of the functioning of 112 in the Member States, to enable comparison among the Member States and to show developments from one year to another. Information drawn from this COCOM Report is also used as the source for country-specific information published on the [Commission's 112 website](#).

Following discussions at the 32nd COCOM meeting in October 2008, the final Questionnaire for this second data-gathering round was distributed to COCOM delegations on 10 November 2008. A draft Report, based on the replies provided by 25 Member States until the end of January 2009 was presented at the 34th COCOM meeting on 18 February 2009. The present final version of the Report integrates the comments and additional information submitted by COCOM delegations after the February meeting. It covers all the Member States; however, not all responses were complete, in particular concerning quality of call handling (Chapter II of the Report).

Compared to the first data-gathering exercise, the number of questions in this second round was reduced in order to focus on the most relevant implementation aspects and it only dealt with the implementation of 112 without requesting comparative information also on the functioning of national emergency numbers as was the case in the first round. The present Report follows the structure of the Questionnaire and is accompanied by an Annex providing a more detailed overview of the information provided by each Member State in a uniform manner.

Considering that 11 February has now been declared by the EU Institutions as the 'European 112 day' to be celebrated every year, this COCOM data-gathering exercise will continue on an annual basis with a view to provide up-to-date information for publication on that date. As was the case with the first data-gathering exercise in 2008, the Commission services will analyse the experience of this second exercise and will review the Questionnaire for the next data-gathering round.

The 'core' questions of this and the first data-gathering exercises will also remain in the future questionnaires, i.e. questions on the quality of service in call handling and caller location. Therefore, Member States are encouraged to pursue their efforts in putting in place the necessary systems for providing data based on measurements of the actual performance of telecom operators and PSAPs in these areas. The results from the first and second rounds have permitted a comparison of the performance of Member States over time to some extent and such comparison is included in this Report. This second exercise demonstrates improvement in terms of comprehensiveness of responses; therefore it is expected that the comparability of results will continue to improve in the next years.

¹ The results of the first COCOM data-gathering exercise on the implementation of 112 were published in the COCOM Report [COCOM08-17 Final](#) and its [Annex](#) in July 2008.

TABLE OF CONTENTS

1.	ACCESS TO 112.....	4
1.1.	Introduction	4
1.2.	Access to 112 for users of VoIP services - availability and information	4
1.3.	Availability of 112 when out of coverage of home mobile network.....	5
2.	CALL HANDLING.....	5
2.1.	Introduction	5
2.2.	Unsuccessful call attempts	6
2.3.	Call set-up time.....	6
2.4.	Response time to emergency calls.....	7
2.5.	Calls in foreign languages	7
3.	CALLER LOCATION	8
3.1.	Introduction	8
3.2.	Fixed caller location	9
3.2.1.	Method and time needed to provide caller location on request.....	9
3.2.2.	Source, comprehensiveness and updating of fixed caller location data.....	10
3.2.3.	VoIP caller location.....	11
3.3.	Mobile caller location.....	11
3.3.1.	Method and time needed to provide caller location upon request.....	11
3.3.2.	Type and accuracy of mobile caller location.....	12
3.3.3.	Possibility to obtain the registered address of a mobile subscription.....	12
3.3.4.	Mobile caller location in case of roaming (international and national).....	13
4.	PROMOTION OF 112	13

SECOND REPORT ON THE IMPLEMENTATION OF 112

1. ACCESS TO 112

1.1. Introduction

Since the end of 2008, all Member States have ensured the possibility to call emergency services from fixed and mobile telephones by using 112. In this second data-gathering round Member States were invited to specify the situation regarding access to 112 for the customers of VoIP operators providing Publicly Available Telephone Services (PATS). According to Article 26(1) of the Universal Service Directive, all end-users of PATS, regardless of the underlying technology, must be able to call 112.

In addition, the second Questionnaire requested information as to whether VoIP providers (both PATS and non-PATS) are obliged to inform their customers about whether access to 112 is provided or not. In fact, an ordinary subscriber might not be aware of the different status of his/her chosen telecom provider (PATS or non-PATS); therefore information about the availability of 112 may be quite relevant, in particular when the relevant provider is a non-PATS provider and does not ensure access to 112.

Regarding availability of 112 for users of mobile services, the results of the first data-gathering round showed that 112 is also available throughout the EU for visitors from other EU countries and third countries using international mobile roaming services. On the other hand, it also showed that not all Member States made it possible for customers of their domestic mobile operators to call 112 also in the situation when they are out of their home network coverage by using another available domestic mobile network. The Member States were therefore asked to provide up-to-date information on the availability of such a facility.

An overview of Member States' replies is provided in Table 1 of the Annex.

1.2. Access to 112 for users of VoIP services - availability and information

24 Member States confirmed that their laws require that access to 112 is ensured for customers of VoIP operators providing PATS. Only **Latvia** and **Hungary** responded negatively while **Greece** indicated that access to 112 is subject to 'technical feasibility'.

The Member States' responses were much more divided as regards the obligation of VoIP providers (both PATS and non-PATS) to inform their customers about whether access to 112 is provided or not. Among the 25 Member States that responded to this question, **nine** Member States said that such requirement existed. In addition, the **Czech Republic**, **Malta** and **Slovenia** indicated that such an information obligation applies to PATS VoIP providers and **Italy** replied that, despite the absence of legal requirements, VoIP providers usually inform their subscribers. Furthermore, **France** explained that no such information obligation existed because all VoIP operators must provide 112 access and **Germany** specified that there was no such obligation because all PATS operators must provide 112 access.

1.3. Availability of 112 when out of coverage of home mobile network

The possibility for domestic mobile users to access 112 when they are out of their home network coverage by using another available domestic mobile network, which may be referred to as national 'emergency roaming', can be particularly relevant in areas of the national territory with limited mobile network coverage, for example, in areas where only one of a country's several mobile network providers has rolled out its network.

25 Member States confirmed that such national emergency roaming is available. The only exception is the **United Kingdom**, which indicated that discussions have started on the introduction of this facility, while **Belgium** reported that this facility is currently only available on two of the three national mobile networks. In addition, **Estonia** specified that the user concerned must first remove the SIM card to benefit from this facility. In contrast, **Cyprus** and **Romania**, which provided negative replies on this issue during the first data-gathering round, now reported having enabled national emergency roaming.

By way of complementary information, the Member States were also invited to indicate how the national emergency roaming is achieved, in particular whether it is a consequence of allowing SIM-less 112 calls in general or a consequence of specific obligations placed upon or arrangements made between mobile operators. SIM-less 112 calls were reported possible in 21 Member States, the remaining six being **Belgium, France, Cyprus, Romania, Slovenia** and the **United Kingdom**. However, **Germany** indicated that SIM-less calls will be disabled as from the 2nd half of 2009.

2. CALL HANDLING

2.1. Introduction

The core part of this data-gathering exercise on the implementation of 112 concerns the quality of call handling. The criteria used in assessing it are the ratio of unsuccessful call attempts and call set-up times, which aim at evaluating the performance of telecommunications operators and networks, and response times to emergency calls and handling of calls in foreign languages, which aim at evaluating the performance of PSAPs.

Compared to the first Questionnaire, a much greater number of responses used this time the methodology of ETSI standards EG 202 057-1/2/3, which were suggested in order to make the results more easily comparable. In this data gathering round the Member States were specifically invited to indicate whether the information provided on unsuccessful call ratio, call set-up time and call response time is based on actual measurements or whether estimates are used. In case of measurements, the Questionnaire asked for certain details, such as the time period of observation and the number of calls observed.

Performance measurements clearly produce a lot more reliable data than estimates. Hopefully, those Member States, which are not yet in a position to carry out such performance evaluation, will follow best practice in this area and will also progressively introduce the necessary capabilities, thus further increasing the quality of their data.

As regards the call handling in foreign languages, compared to the first Questionnaire, the present second Questionnaire merely asked the Member States to specify the foreign EU languages, in which their PSAPs can answer 112 calls, indicating at the same time whether calls in such languages can be handled in all PSAPs or in accordance with additional procedures such as call transfer to another PSAP or involving an external interpretation service.

An overview of Member States' replies to these questions is provided in Table 2 in the Annex.

2.2. Unsuccessful call attempts

'Unsuccessful call' was defined in the Questionnaire as a call attempt, properly dialled following dial tone, where neither called party busy tone, nor ringing tone, nor answer signal, is recognised at the access of the calling user within 30 seconds for fixed origination calls or 40 seconds for mobile origination calls from the instant when that last digit of the destination subscriber number is received by the network.

In total, 14 Member States reported on their unsuccessful call ratio, among which **six** countries – **Bulgaria, Czech Republic, Greece, Spain, Cyprus** and **Slovenia** – provided data based on measurements, which was 0% in **Greece** (all calls), 0.12 % (fixed) and 0.04% (mobile) in the **Czech Republic**, 0.019% (fixed) and 0.53% (mobile) in **Cyprus**, 0.24% (fixed) and 0.78% (mobile) in **Spain**, 1.8% (all calls) in **Slovenia** and 0.63% (fixed) and 4.95% (mobile) in **Bulgaria**.

The estimated unsuccessful call ratio in the other Member States was 0% in **Denmark**, 0.05% in **Ireland**, less than 1% in **Germany**, 1.6% in **Portugal** and 3.2-6.5% in **Lithuania**.

Finally, **Romania** indicated that the unsuccessful call ratio for 112 calls is at least similar as for ordinary calls, performance is considered satisfactory in **Finland** and the **United Kingdom** reported that the unsuccessful call ratio is very low since emergency calls are prioritised on the networks.

Since only eight Member States provided this data during the first data gathering round, it is not unfortunately possible at this stage to analyse the evolution of performance in this area over time.

2.3. Call set-up time

Call set-up time was defined in the Questionnaire as the period starting when the address information required for setting up the call is received by the network and finishing when the called party busy tone or ringing tone or answer signal is received by the calling user. Regarding this call handling criterion, it was suggested to provide data on the average call set-up time in seconds and the time in seconds within which the fastest 95% of emergency calls are set up.

In total, 16 Member States reported on call set-up times, among which **seven** countries – **Bulgaria, Czech Republic, Greece, Spain, Cyprus, Austria** and **Slovenia** – provided data based on measurements, according to which the average call set-up time was 0.70 sec. (fixed) and 0.77 sec. (mobile) in the **Czech Republic**, 0.966 sec. in **Austria**, 0.79 sec. (fixed) and 2.27 sec. (mobile) in **Cyprus**, 1.40 sec. (fixed) and 3.35 sec. (mobile) in **Spain**, 0.67 sec. (fixed) and 5 sec. (mobile) in **Bulgaria**, 4 sec. (all calls) in **Slovenia** and 9 sec. in **Greece** (all calls). In addition, **Cyprus** provided information on time, within which the fastest 95% of emergency calls are set-up, which is 1.8 sec. (fixed) and 3 sec. (mobile).

The estimated average call set-up time in the other Member States was between 0.5 and 1.5 sec. in **Hungary**, 2.5 sec. in **Estonia**, between 1 and 4 sec. in the **Netherlands**,

between 0.45 and 6 sec. in **Lithuania**, 2 sec. (PSTN/ISDN) and 6 sec. (GSM, VoIP) in **Germany** and 0.37 - 1.94 sec. (fixed) and 0.49 – 6.73 sec. (mobile) in **Portugal**.

Finally, **Romania** indicated that call set-up time for 112 calls is at least similar as for ordinary calls, performance is considered satisfactory in **Finland** and the **United Kingdom** reported that call set-up time is very short for emergency calls.

Since only 10 Member States had provided data on call set-up time during the first data gathering round, it is not unfortunately possible at this stage to analyse the evolution of performance in this area over time.

2.4. Response time to emergency calls

‘Response time’ was defined as the duration from the moment when the address information required for setting up the call is received by the network to the moment when the PSAP human operator answers the call. According to the relevant ETSI standard, the Member States were invited to indicate the percentage of emergency calls answered within 20 seconds.

In total, 23 Member States reported on call response times, of which the majority – **17** – were able to provide data based on measurements. The percentage of emergency calls answered within 20 seconds was reported as follows: 100% in the **Czech Republic**, **Greece** and **Romania**, 99.59% in the **United Kingdom**, 99.42% in **Bulgaria**, 97.12% in **Luxembourg**, 96.45% in **Slovenia**, 96% in **Slovakia**, 95.3% in the **Netherlands**, 97.1% for fixed and 92.5% for mobile calls in **Cyprus**, 94% in **Spain**, 90% in **Germany**, 88.8% in **Latvia**, 87% in **Sweden** and 85% in **Austria**. The measurements provided by Ireland and Finland followed a different methodology – **Ireland** reported on average response time of 0.98 sec. and 95.37% of calls answered within 5 seconds and **Finland** reported on the percentage of calls answered within 30, 10 and 5 seconds, which is 90, 85 and 59% of calls respectively.

The estimated call response time in the other Member States was 100% of calls answered within 20 sec. and in 8.5 sec. on average in **Estonia**, 90% of calls answered within 20 sec. in **Lithuania**, between 5 and 10 sec. in **Hungary**, between 6 and 21 sec. in **Portugal**, between 20 and 25 sec. in **Denmark** and 1 min. on average in **Poland**.

Although about the same number of Member States provided data on call response time during the first data gathering round, only a few of them used the suggested methodology at that time, which means that, again, it is not unfortunately possible at this stage to analyse the evolution of performance in this area over time.

2.5. Calls in foreign languages

Among the 24 Member States, which provided information on the language issue, **21** Member States (in addition to the United Kingdom and Ireland) reported on the ability of their PSAPs to handle calls in English (**Bulgaria**, the **Czech Republic**, **Denmark**, **Germany**, **Estonia**, **Greece**, **Spain**, **France**, **Cyprus**, **Latvia**, **Lithuania**, **Luxembourg**, **Hungary**, **Malta**, the **Netherlands**, **Austria**, **Romania**, **Slovenia**, **Slovakia**, **Finland** and **Sweden**). Of these Member States, Germany, Spain, France and Slovakia indicated that English may not be available in all cases in all PSAPs and its availability depends on the linguistic resources of the PSAPs while Bulgaria and Latvia said that calls in English can be forwarded for processing to another (central) PSAP where competent staff is available.

112 calls in German can be answered in ten Member States (in addition to Germany, Austria and Luxembourg) - **Bulgaria** (by call transfer to another PSAP if necessary), the **Czech Republic, Denmark** (by call transfer to another PSAP if necessary), **Spain** (may not be available in all PSAPs), **Ireland, Hungary**, the **Netherlands, Romania** (by call transfer to another PSAP if necessary), **Slovakia** (subject to availability of appropriate staff) and **Finland** (by involving interpretation service).

112 calls in French can be answered in nine Member States (in addition to France and Luxembourg) - **Bulgaria** (by call transfer to another PSAP if necessary), the **Czech Republic** (by transfer to another PSAP if necessary), **Ireland, Greece, Spain** (may not be available in all PSAPs) the **Netherlands, Romania, Slovakia** (subject to availability of appropriate staff) and **Finland** (by involving interpretation service).

112 calls in Italian are answered in three Member States (in addition to Italy) – **Spain** (may not be available in all PSAPs), **Ireland** and **Romania** (by call transfer to another PSAP if necessary).

A number of Member States have indicated the ability of their PSAPs to answer calls in the languages of their neighbouring EU countries. Thus, calls in Polish can be handled by PSAPs in the **Czech Republic** (by call transfer to another PSAP if necessary), **Lithuania** and **Slovakia** (in PSAPs of certain areas); 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**, calls in Italian – in **Slovenia** (in PSAPs of certain areas), calls in Portuguese – in **Spain** (may not be available in all PSAPs) 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, **Spanish** PSAPs can handle calls also in Swedish (may not be available in all PSAPs), **Irish** PSAPs can handle 112 calls also in Polish and **Romanian** PSAPs can handle calls also in Spanish (by call transfer to another PSAP if necessary). Finally, the **United Kingdom** indicated that its PSAPs can have recourse to interpretation services covering 170 languages, **Swedish** PSAPs can have recourse to an interpretation service covering all major EU languages and **French** PSAPs can use interpretation services in English and other languages.

3. CALLER LOCATION

3.1. Introduction

An overview of the relevant information from the Member States' replies is available in Table 3 (fixed caller location) and Table 4 (mobile caller location) in the Annex. As in the first Report, also this second Report deals with caller location separately in relation to fixed and mobile calls using partially different sets of implementation criteria for these two types of calls.

The two common questions for both types of calls concern the method used to provide caller location (i.e. either 'Push' or 'Pull' in the meaning of [Commission Recommendation 2003/558/EC](#)) and the time needed to provide caller location² when using the 'Pull' method (i.e. providing caller location upon specific request for a specific

² Defined as the period starting when the PSAP human operator requests the caller location information and finishing when the calling location information is received for 'Pull' systems.

call). The attention of the Member States was drawn to the fact that the application of the 'Push' method implies caller location information being provided and put at the disposal of the 112 call handler as soon as the call is answered, which would normally happen without delay.

As regards the time needed to provide caller location according to the 'Pull' method, the Questionnaire asked for indications as to whether this information is based on actual measurements or on estimates. For measurements, a preferred method for presenting results was proposed – (1) average time for providing caller location and (2) the percentage of calls for which caller location is provided within one minute.

This reference time was chosen for the reason that most of the Member States that provided this information in their replies to the first questionnaire reported times below 1 minute for both mobile and fixed caller location. In this regard it should be pointed out that, even though the current regulatory framework does not prescribe any specific time limit for providing caller location information, it is obvious that the relevant provision of the Universal Service Directive (Article 26(3)) should be read as requiring a timely provision of caller location information, so that it is useful for the emergency services and serves the purpose it is intended for.

3.2. Fixed caller location

3.2.1. Method and time needed to provide caller location on request

Six Member States (**Bulgaria, Denmark, the Netherlands, Portugal, Romania and Slovakia**) reported to be using the 'Push' method for providing fixed caller location. In addition, in Slovenia the 'Push' method is used by some operators, in Italy it is used in one province and in Spain by 13 PSAPs.

Among the Member States, which use the 'Pull' method, **eight** countries – the **Czech Republic, France, Latvia, Lithuania, Luxembourg, Finland, Sweden** and the **United Kingdom** - reported near instant times to provide caller location (up to 15 sec.), which in practical terms render the performance of their caller location systems similar to that of 'Push' systems. Also Austria reported similar rapidity in case of electronically handled caller location information requests.

A slightly longer time to provide caller location information (up to about 1 min. on average and/or maximum) was reported by **five** countries – **Estonia, Spain, Ireland, Cyprus** and **Poland**.

The longest delays were reported by **Germany** (90 sec. on average), **Hungary** (between 20-30 sec. and 2-3 min.), **Greece** (3 to 7 min.), **Austria** (up to 30 min. in case of verbal/written manual requests), **Slovenia** (between 1 min. and 1 hour) and **Malta** (approximately 1 hour during office hours).

Only **Ireland** additionally provided data according to the second criterion – percentage of caller location requests, for which caller location is provided within one minute, which was 100%. Data based on measurements was provided only by the **Czech Republic** while all the other Member States used estimates.

For comparison, in the first data gathering exercise there were 16 countries, which reported that fixed caller location is provided within 1 min. - **Bulgaria, the Czech Republic, Denmark, Estonia, Greece, Spain, France, Cyprus, Latvia, Lithuania, Luxembourg, the Netherlands, Slovakia, Finland, Sweden** and the **United Kingdom**.

3.2.2. *Source, comprehensiveness and updating of fixed caller location data*

In their responses to the first Questionnaire, the majority of Member States reported that they have set up central databases, from which emergency services receive address information for fixed calls (this database can also be the universal directory service run by the fixed incumbent, for example). Indeed, this appears to be a logical solution if there are several fixed communication providers making it impractical for the emergency services to seek caller location information by first identifying the relevant fixed operator and then contacting it directly (i.e. consulting the address database of the specific operator that originates the 112 call in question).

Where a central database is used by the emergency services to retrieve caller location, it is highly relevant that operators provide updates to this database concerning their subscribers, in particular to include new subscribers and to update the address data of existing subscribers who have changed address.

The comprehensiveness of such databases is also highly relevant. Some Member States indicated in their replies to the first questionnaire that customers of certain (alternative) operators were not included in the number/address database used by emergency services to establish caller location for fixed calls. It was also reported by some Member States that location data of certain fixed subscribers was not available for the emergency services because these subscribers have chosen not to include their personal data in the directory service, which is used by the emergency service to find the subscriber address information.

In the light of this information, the second Questionnaire included a specific question concerning the availability of caller location in case of subscribers that are not included in directory services. In addition, it included a question concerning those subscribers who have exercised their right to prevent the presentation of their calling line identification (CLI), which is another facility made possible by Directive 2002/58/EC on privacy and electronic communications. This question seemed relevant since it would appear that the ability to establish caller location in many instances depends on whether the PSAP concerned receives calling line identification, which enables it to make the request for caller location on the basis of the received CLI.

14 Member States - **Bulgaria, the Czech Republic, Denmark, Germany, Spain, Ireland, Latvia, the Netherlands, Portugal, Romania, Slovakia, Finland, Sweden and the United Kingdom** – reported having set up centralised comprehensive fixed caller location databases. Furthermore, a database covering part of the fixed operators is used in Belgium, while the centralised databases used in France and Austria do not include subscribers that are not included in the directory services (although work has started on a comprehensive database in France). Also Poland indicated that a centralised database is in preparation.

The frequency of updating these centralised databases was reported daily in most of the countries concerned except **Germany** (from daily to weekly depending on provider), **France** (every ‘few’ days), **Bulgaria** (twice a month), **Romania** (monthly), **Slovakia** (every three months) and **Spain** (overall update every six month, partial updates every two weeks).

As regards the specific question on the availability of caller location in case of subscribers not included in directory services only **Denmark, Spain and France** reported not being able to locate fixed subscribers falling within this category (it was reported possible in some Spanish PSAPs, though). In addition, **Malta** indicated that, while caller location is

still possible in case of subscribers whose data are not included in directory services, it is subject to a more lengthy written procedure.

On the other hand, all the Member States with the exception of **Spain**, where it is not possible in some PSAPs, confirmed the availability of caller location in case of subscribers that have prevented the presentation of their CLI (because it is still delivered to the PSAP notwithstanding the choice of the subscriber). The location of such subscribers is however subject to a more lengthy written procedure in **Malta**.

3.2.3. VoIP caller location

Finally, Member States were invited to indicate whether caller location information is provided for subscribers of VoIP operators providing Publicly Available Telephone Services (PATs) in their countries. Among the 21 Member States that replied to this question, most confirmed that caller location is possible in case of such subscribers. The exceptions were **Spain**, where it depends on the PSAP, **Austria**, which replied negatively, and **Lithuania**, which indicated that caller location is provided only as regards the subscribers of one PATs VoIP provider.

Furthermore a number of countries, which in principle responded affirmatively, indicated that caller location is subject to technical feasibility, namely the actual address may not be available in case of using nomadic VoIP systems, for which only the registered subscription address may be available (**Bulgaria**, the **Czech Republic**, **Denmark**, **Germany**, **Cyprus**, **Sweden** and the **United Kingdom**).

3.3. Mobile caller location

3.3.1. Method and time needed to provide caller location upon request

Seven Member States (**Bulgaria**, the **Czech Republic**, **Denmark**, **Cyprus**, **Luxembourg**, **Portugal** and **Romania**) reported to be using the 'Push' method for providing mobile caller location. In addition, this method is used by some operators in Slovenia and by one mobile operator in Slovakia. In Italy it is used in one province and in Spain it is used in 15 PSAPs.

Among the Member States, which use the 'Pull' system, **five** Member States - **Latvia**, **Poland**, **Finland**, **Sweden** and the **United Kingdom** – reported near instant average times to provide caller location (i.e. within 15 sec.), which in practical terms render the performance of their caller location systems similar to that of 'Push' systems. Also the Netherlands reported that caller location is provided instantly in case of one mobile network and Lithuania indicated the average time between 1.5 and 10 sec. for providing caller location in one, central PSAP.

A slightly longer time to provide caller location information (up to about 1 min. on average and/or maximum) was reported by **three** countries – **Slovakia** (from 2-3 sec. to 20 sec. max.), **Estonia** (23 sec.) and **Spain** (30 sec.).

The longest delays were reported by **Hungary** (between 20-30 sec. and 2-3 min.), **Germany** (5 min. on average), **France** (10 min during working hours and up to 30 min. outside working hours), **Austria** (up to 30 min. in case of verbal/written manual requests), **Greece** (7 to 60 min), **Slovenia** (between 15 min. and 1 hour) and **Malta** (approximately 1 hour during office hours).

Three countries additionally provided data according to the second requested criterion – percentage of caller location requests, for which caller location is provided within one minute. This was reported to be 100% in **Lithuania** (in the PSAP of the capital city), 98.17% in **Latvia** and 94.5% in **Slovakia**. Data based on measurements were provided by **Germany** and **Latvia** while all the other countries used estimates.

For comparison, in the first data gathering exercise there were 11 countries, which reported that mobile caller location is provided within 1 min. - **Bulgaria**, the **Czech Republic**, **Denmark**, **Estonia**, **Spain**, **Latvia**, **Luxembourg**, **Slovakia**, **Finland**, **Sweden** and the **United Kingdom**.

3.3.2. Type and accuracy of mobile caller location

In their replies to the first Questionnaire, most Member States indicated mobile network Cell ID or Sector ID as the available mobile caller location information. Accordingly, this type of caller location currently appears to be the ‘technically feasible’ minimum caller location information in the meaning of Article 26(3) of the Universal Service Directive, which all mobile operators within the EU should be able to provide. In order to be understandable and usable by the emergency services it must obviously be possible to link the Cell ID/Sector ID to a particular geographical area on a map, and appropriate technical arrangements should exist in the Member States for this purpose.

The accuracy of mobile caller location in the case of Cell ID/Sector ID depends on the mobile cell or sector coverage that varies between urban and rural areas. The second questionnaire therefore invited the Member States to indicate the availability of any ‘enhanced’ mobile location technologies that allow for better results than Cell ID/Sector ID.

24 Member States reported Cell ID/Sector ID as the available mobile caller location information. Among these countries, **Poland**, **Finland**, **Sweden** and the **United Kingdom** indicated the existence of additional facilities to increase accuracy of mobile caller location, based on measurements and calculations (‘timing advance information’) and the **Netherlands** reported on the availability of a special 112 service for disabled users, which transmits GPS coordinates. As for the other countries, the **Czech Republic** uses area and Best Server Base Transceiver Station ID, **Estonia** reported ‘coordinates’ as the available caller location information while in **France** the mobile caller location is the relevant postal code.

3.3.3. Possibility to obtain the registered address of a mobile subscription

In their replies to the first Questionnaire a few Member States had indicated that in their countries PSAPs can also obtain the address information corresponding to the mobile subscription. This certainly appears a useful additional facility, especially in the light of the fact that more and more customers give up their fixed lines and use mobile telephones also at home, thus increasing the chance that the mobile customer’s registered home address is also the place from which the 112 call is being made. A specific question on this additional feature of mobile caller location was therefore included in the second Questionnaire.

17 Member States reported that it was possible for PSAPs to obtain also the address of the mobile subscription. In addition, **Slovakia** is planning to introduce such facility in 2009 and **Lithuania** reported that it was available for customers of one mobile network. Some

Member States (Malta, the Netherlands, Austria and the United Kingdom) drew attention to the fact that registered address may not be available for all mobile users (such as pre-paid mobile users who are not required to register).

3.3.4. Mobile caller location in case of roaming (international and national)

Finally, Member States were invited to indicate whether caller location information is provided for calls made by the users of international mobile roaming services and domestic mobile subscribers in the situation of national roaming, if such facility is available.

23 Member States reported that caller location is possible as regards users of international mobile roaming services. Four countries – **Ireland**, the **Netherlands**, **Sweden** and the **United Kingdom** replied that caller location was not possible; the Netherlands and Sweden indicated that they are considering the introduction of such a facility. In addition, in **Spain** this facility is not available in some PSAPs.

As regards mobile users in the situation of national roaming, out of the 19 Member States that replied to the relevant question **14** Member States reported that caller location is possible. Caller location is not provided for such mobile users in five countries – **Belgium**, **Latvia**, the **Netherlands**, **Finland** and **Sweden**; the Netherlands and Sweden indicated that they are considering the introduction of such a facility. In addition, in **Spain** this facility is not available in some PSAPs.

4. PROMOTION OF 112

In the same way as the first Questionnaire, also the second one included questions about information and promotion activities in relation to 112. The specific questions were classified in two groups – (1) measures taken by the authorities/ NGOs (which included as examples dedicated programmes/ campaigns in mass media, display on posters, leaflets, websites etc., information in kindergartens / schools and display on vehicles of emergency services); and (2) measures taken by telecom operators (which included as examples promotion on operators' websites, invoices etc, inclusion of 112 in SIM address books, display in telephone directories and in pay telephone booths). Finally, the Member States were invited to indicate specific measures addressing travellers (visiting foreign tourists and persons travelling abroad).

An overview of the different types of measures in each country is provided in Table 5. The '112 day' tradition in **Finland** (on 11/2) and the intention of **Slovakia** to launch a media campaign on this date this year have been particularly highlighted. This overview table shows that there are countries that use almost a full spectrum of the mentioned promotional activities (such as Bulgaria, the Czech Republic, Estonia, Spain Ireland, Cyprus, Lithuania, Poland, Slovenia and Slovakia) while the list of activities is much shorter in case of some other countries.

As regards awareness-raising measures addressing in particular travellers, most of the countries indicated that 112 is advertised through specialised tourist brochures, websites and multi-language guides distributed at tourist sites such as airports, stations, tourism agencies and hotels. As measures, which distinguish themselves amongst the others, one could mention information about 112 being included in welcome SMS sent to visiting mobile roaming users in **Bulgaria** and **Hungary**, display of 112 on motorways (at toll

points) in **Austria, Greece and Spain** and display of 112 on the transport used for tourists in **Luxembourg**. Moreover, worth special mentioning is the media campaign in **Sweden** before vacations providing information on 112 as the EU emergency number.

Despite the increase of the awareness-raising activities in the Member States demonstrated by this Report, the knowledge of 112 as the European emergency number still remains low. On the occasion of the first 'European 112 Day' on 11 February 2009, the Commission also unveiled the results of the latest Eurobarometer survey³ on awareness and experiences of using 112. Although it showed a two percentage point increase in a year, the European average awareness level of 112 as the European emergency number still remains at just 24%. Also in countries where 112 is widely known as the national emergency number a much smaller share of the population knows that 112 is also the number for calling emergency services when visiting another EU country. This means that the various awareness-raising activities implemented in the Member States should be more focused on promoting 112 as the European emergency number.

³ Summary available on the Commission's 112 website <http://ec.europa.eu/112>