COCOM 15-03

COMMUNICATIONS COMMITTEE

Working Document

Subject: **Implementation of the European emergency number 112 –
Results of the eighth data-gathering round**

The data-gathering exercise based on Key Performance Indicators was introduced with a view to implement performance measurements in order to get reliable data which would allow the assessment and optimisation of the access to 112 at national level.

Quality of the data

Member States were invited to follow the definitions of the measurements provided in the KPI reporting table. This year again, Finland, Ireland, Romania, Spain and Sweden were the countries which could serve as best practice in providing the data according to the methodology described in the reporting table. Several of the responses received were not complete or indicated explicitly that certain data was not available. In case of Italy, Luxembourg, Cyprus the data was not consolidated, but broken down on regions, emergency services or operators, making the harmonised processing of the data impossible. The least relevant information was received from Cyprus and Germany. On the positive side, this is the first year that all Member States submitted their data.

The quality of the reported data did not improve significantly. While some Member States reported relevant data which were not available in the previous exercise others ceased to report some relevant data. In some cases, significant deviations from the values reported in the previous year raise the question of the reliability of the data reported. Member States, which are not yet in the position to carry out such performance evaluation, are encouraged to follow best practice in this area to progressively introduce the necessary capabilities, thus further increasing the quality of their data.

Main findings

- Access to 112 for disabled end-users did not improve significantly. 22 Member States reported the implementation of an alternative access to 112, up from last year's 21. The take-up of SMS remained the same (18 Member States) while 3 Member States reported the ongoing deployment of such alternative means to contact emergency services.

- 20 Member States reported less than 10 seconds for the answer time needed to get in contact with emergency services. This best practice should be followed by others in terms of performance and also the ability to monitor the indicator.

- No improvement is noticed on the implementation of more accurate caller location in Europe. Cell ID/Sector ID is a standard location requirement in Europe for mobile networks delivering accuracy between 30 meters and tens of kilometres. Member States are encouraged to step up their efforts to provide more accurate caller location. In this sense the ECC Report 225 on "Establishing Criteria for the Accuracy and Reliability of Caller Location Information in Support of Emergency Services" published on 22 October 2014 should be a useful guiding tool for national administrations to improve caller location.[1]

- In order to make the emergency intervention more efficient caller location should be provided together with the call to the emergency service. Still, excessively long time is needed to receive the caller location in France (several minutes), Malta (5-10 minutes) and Greece (34 min. 56 s). It has to be noted that Austria and the Slovak

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[1] http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCREP225.PDF

Republic did not report relevant data for this Key Performance Indicator.

These performance indicators were agreed by emergency experts to reflect the efficiency and effectiveness of access to 112 calls. Member States are called on to develop their measuring tools in order to monitor these indicators in order to optimise their 112 systems.

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INTRODUCTION

This Report provides an analysis of the replies submitted by Member States on the Key Performance Indicators (KPI) reporting on the Implementation of 112. This is the seventh data gathering exercise following the previous exercises that resulted in the publication of COCOM Reports, COCOM08-17 Final (with Annex) in July 2008, COCOM09-11 Final (with Annex) in March 2009, COCOM10-09 REV1 (with Annex) in March 2010, COCOM 10-38 (with Annex) in February 2011, COCOM 12-01 Final (with Annex) in February 2012, COCOM12-20Rev (with Annex) in February 2013 and COCOM 14-01 (with Annex) in February 2014.

This Report is based on the KPI reporting table which was submitted to Member States on 16 June 2014 with a deadline for response on 7 November 2014 (COCOM 14-12). In order to provide the most recent data for the Key Performance Indicators, the reporting period was set for 1 July 2013 till 31 June 2014.

The current KPIs were established on the basis of the cooperation with Member States experts. COCOM delegations were also consulted on these indicators in 2013.

The current Report follows the structure of the KPI reporting table and it is accompanied by the Annex providing a more detailed overview on the information provided by the responding Member States, in a harmonised manner. The KPIs reflect the provisions of Article 26 of the amended Universal Service Directive concerning the access to 112 for disabled users, provision of caller location and the accuracy and reliability of caller location information. It covers the information submitted by all Member States. As agreed, the COCOM observer delegations from Candidate and EEA Countries were also invited to submit replies to the questionnaire. Of these countries, replies were received from Iceland, Liechtenstein and Norway.

This Report was published on 11 February 2015, (more information on the Commission's '112' website: www.112.eu). On the '112' website country-specific information is also published.

SEVENTH REPORT ON THE IMPLEMENTATION OF 112

1. Calls to 112

In total 131,152,663 calls were made to 112 (excluding calls made in Germany and Cyprus which were not reported).

112 is the single emergency number in Denmark, Finland, Malta, the Netherlands, Portugal, Romania and Sweden. In Member States where 112 is not the single emergency number (such as Bulgaria, Estonia, Lithuania, Luxembourg, Slovenia and Spain) more than 50% of the calls were directed to 112.

There were only 19 Member States that provided information on false calls[2]. The ratio of false calls to the total number of calls still appears to vary considerably among the Member States: whereas in Cyprus the number of such calls is approximated at 8%, Greece reported 84%. The following Member States are between these two extremes: Belgium (20%), Bulgaria (42,73%), Croatia (51,9%), Cyprus (8%), Denmark (60%), Finland (29%), France (24%), Greece (84%), Hungary (80,56%), Ireland (60,5%), Italy (10%), Malta (22.22%), the Netherlands (mobile 46%), Portugal (66,3%), Poland (36,8%), Romania (69,46%), Spain (30,40%), Sweden (40,8%) and the United Kingdom (51,85%).

2. Access to 112 for disabled end-users

The question on access to 112 by other means than voice communication reflects the requirements of the regulatory framework, which provides for the obligations of Member States to ensure that disabled end-users enjoy equivalent access to 112. Member States were invited to provide information on their measures, which ensure that disabled end-users enjoy tailored solutions for equal access to 112 taking into account aspects such as speed, mobility, reliability, coverage or language handling.

Out of the 30 replies received, 24 (with Iceland and Norway) mentioned the existence of alternative means[3] to voice as measures to provide access to emergency services:

SMS as an alternative means of access to emergency services is available in 18 Member states, Iceland and Norway. The Member States concerned are: Austria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Ireland, Italy, Latvia, Luxembourg, Malta, Portugal, Slovenia, Spain, Sweden and United Kingdom. Bulgaria, Poland and Malta reported plans to introduce 112 SMS. Hungary is planning the development of a dedicated portal.

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[2] False calls are calls which are not followed up with intervention or assistance from the PSAP or the emergency services. Calls that report an emergency event which has already triggered intervention or assistance from the part of the PSAP, therefore not triggering separate intervention or assistance, will not be considered false calls. Abandoned calls, as defined in KPI no. 4 are excluded from the category of false calls.

[3] Alternative means of access is a non-voice access, or voice access assisted by other type of non-voice service in order to permit the effective conveyance of a request for emergency relief. Examples: real-time text, sms, video streaming, relay services.

Text relay services are available in the Czech Republic, the Netherlands, Slovenia, Spain, Sweden, United Kingdom. Fax is used in Belgium, Cyprus, France, Italy, Luxembourg. Minicom is deployed in Ireland in addition to 112SMS.

Twelve Member States, up from 8 the year before, can monitor the uptake of access to emergency services through alternative means. Member States that reported the number of communications through these means to 112 or other dedicated numbers are: Austria, Estonia, France, Greece, Ireland, Italy, Latvia, Luxembourg, Slovenia, Spain, Sweden, United Kingdom. Iceland also reported on the number of emergency requests through SMS.

3. Answering time[4]

People in distress are often in desperate need to get in contact with the emergency services operator. 20 Member States reported less than 10 seconds for the answering time needed to get in contact with the emergency services. The best performing Member States where more than 90% of the calls are answered in 10 seconds are: Bulgaria, Croatia, Czech Republic, Finland, Hungary, Ireland, the Netherlands, Portugal, Romania, Slovenia, Spain, United Kingdom. Iceland reported that 91% of the calls are answered within 8 seconds.

A pre-recorded message is played before getting in contact with an operator in Cyprus, France, Greece and Spain.

4. Call abandon rate

The respondents were also invited to report on the calls that are presented to the PSAP switches but terminate prior to an answer by a human operator. 21 Member States, Iceland and Norway could report on this data. Call abandons may be caused by network problems, call congestion, etc.

A call abandon rate of more than 20% was reported by the Czech Republic, Denmark, France, Italy, Latvia, Lithuania, Luxembourg, Poland, Portugal and Sweden.

5. Lack of availability of caller location

The provision of caller location by undertakings concerned is an obligation under Article 26(5) of the Universal Service Directive. However, there are cases, where due to technical problems in the networks or on the PSAP side, the caller location information cannot be determined automatically or on request in both "push" and "pull" systems.

Only 18 Member States reported this data. In most Member States the lack of availability of caller location occurs in less than 10% of the calls. Higher rates of failure to provide caller location were reported for Italy (18-20%), Slovak Republic (18%) and Spain (17,68%). In the Slovak Republic the request for caller location is repeated, usually with a positive result, while in Spain the figure includes the situations where the location information is available but cannot be processed by the PSAP or it is not sufficiently accurate.

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[4] The time period between the moment the emergency call is presented to the stage 1 PSAP switch and the moment the call is being answered by a PSAP human operator.

6. Caller location accuracy and reliability

Member States were asked to provide the level of accuracy and reliability provided by network operators to the PSAP.

In 23 Member States the accuracy for the location of the caller from fixed networks is given by the installation address, street/mailing/billing address of the calling party, STD Code match or county match. This location technology is deemed reliable by the respondents.

24 Member States reported that for the location of the caller from mobile networks the accuracy is given by the Cell/sector ID providing a high reliability of the data transmitted to the PSAP operator. However, there is no information on the usefulness of the data transmitted, the accuracy reported being from 30 to 5000 meters.

Portugal provided a very useful breakdown of the accuracy of Cell ID technology:

Radius (m)	%
100	0,95%
250	3,87%
500	7,33%
750	8,82%
1000	12,71%
2000	23,03%
4000	28,61%
10000	10,24%
20000	3,40%
40000	1,03%

Denmark reported on the use of a 112 App which could provide an accuracy of 10 to 60 meters.

7. Average time needed for receiving the caller location by the 112 operator

The timely provision of caller location data is highlighted in Article 26(5) of the Universal Service Directive as amended by the "Citizens' Rights" Directive requiring Member States to ensure that undertakings concerned make caller location information available free of charge to the authority handling emergency calls as soon as the call reaches that authority.

Due to the implementation of the "push" system or the automatic "pull" system, near instant times (up to 10 seconds) were reported by Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, Germany (PSAPs where "pull" is introduced), Hungary, Ireland, Italy, Lithuania, Luxembourg, the Netherlands, Romania, Slovenia, Spain, Sweden and United Kingdom. Longer times were reported by Cyprus (20 s), Croatia (10-50 s), Germany (70 s – PSAPs where "pull" is not yet introduced) and Poland (73 s). Excessively long time is needed to receive the caller location in France (several minutes), Malta (5-10 minutes) and Greece (34 min. 56 s, down from 38 min. 46 s the previous year). Austria, the Czech Republic, Latvia, Portugal and the Slovak Republic did not report relevant data for this Key Performance Indicator.

8. Availability of EU roaming call to 112 and caller location by mobile network operators

According to the replies to the previous questionnaire, caller location was not available in all Member States for users of intra-EU and/or national 112 roaming. The current replies show that these categories of mobile users still cannot be located when calling 112 in several Member States. However, the fact that this facility is now available in the majority of countries shows that it is technically feasible within the meaning of the EU regulatory framework.

Out of the 28 Member States Denmark did not provide relevant information. All other Member States, except France, reported that an EU roaming call to 112 is possible on their territory. France and the United Kingdom (for some networks) reported that for intra EU roaming calls caller location is not available.

9. Awareness levels on 112

In the Annex to this document the awareness levels on 112 in January 2014 are presented in brackets. The new data on awareness levels will be available in March 2015 through the E-communications household survey commissioned by the European Commission.

The following questions related to 112 awareness were asked in the survey:

1) Can you tell me what telephone number you would call in the event of an emergency in (OUR COUNTRY); for example, if someone needs urgent medical assistance or if you need to contact the police or the fire brigade?

Finding (January 2014): 58% of Europeans chose 112 as the number to call in case of emergency.

2) Can you tell me what telephone number enables you to call emergency services anywhere in the EU?

Finding (January 2014): 41% of Europeans know that calling 112 provides access to emergency services anywhere in the EU.

In the attached annex the findings of 2014 in each Member State is presented in column 9. In March 2015 the data will be updated.

ANNEX – KEY PERFORMANCE INDICATORS

(2013 data in brackets)

Country	1.1 Number of calls to 112 1.2 % of total emergency calls 1.3 False calls	2.1 Alternative means of access for disabled end-users 2.2 No. of communications to 112 2.3 No. of communications to other numbers	3.1 Average answer time in seconds 3.2 % of calls answered within 10 seconds	4. Call abandon rate
Austria	1.1: 1.333.145 (230.959) 1.2: 20,7 % (13,25 %) 1.3: N/A	2.1: SMS-to-Fax transmission via non-emergency number (0800-133-133) 2.2: none 2.3: 34	3.1: 11,1s (9,6 s) 3.2: 73,6% (76,3 %)	4.1: N/A
Belgium	1.1: 1.376.652 (1.412.038) (112+100: 2.839.983; 101: 2.889.314) 1.2: 24% 1.3: > 20 % false calls of the total number of emergency calls 100/112 About 16% of calls to 101 are false calls	2.1: Fax[5] 2.2: N/A 2.3: N/A	3.1: 6,8s (7,1s) 3.2: 78% (85 %)	4.1: N/A
Bulgaria	1.1: 6 387 922 (6.939.549) 1.2: 64.10% (78.31%) 1.3: 42.73% (42.42%)	2.1: Plans to provide non-voice access to 112	3.1: 4.32 s (4,33 s) 3.2: 99.14 % (99.50%)	4.1: 14.37% (14.48%)
Croatia	1.1: 2,664,176 (2.992.688) 1.2: N/A 1.3: 51,9% (52,1%)	N/A	3.1: 5,1 s (4,91 s) 3.2: 92 % (93,97%)	4.1: 4,4% (9,37 %)
Cyprus	1.1: N/A 1.2: N/A 1.3: approx 8%	2.1: Telefax, SMS 2.2: N/A 2.3: N/A	3.1: 15-16 s 3.2: 0% There is a pre-recorded message notifying that the call is recorded which lasts 10 sec.	4.1: N/A
Czech Republic	1.1: 3 230 765 (2.694.624) 1.2: N/A (44% of all calls in 2012) 1.3: N/A (75% of	2.1: Relay services, local SMS services 2.2: N/A 2.3: N/A	3.1: 4,6 s (0,46 s) 3.2: 100% (100 %)	4.1: 32,06 % (39 %)

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[5] SMS to 112 and 101 (only for people with hearing and/or speech impairment) in development, trials starting Q4 2014

Country	1.1 Number of calls to 112 1.2 % of total emergency calls 1.3 False calls	2.1 Alternative means of access for disabled end-users 2.2 No. of communications to 112 2.3 No. of communications to other numbers	3.1 Average answer time in seconds 3.2 % of calls answered within 10 seconds	4. Call abandon rate
	false calls to 112 in 2012)			
Denmark	1.1: 1,584,261 (513.450) 1.2: no other emergency numbers are in use. 1.3: Danish National Police: 60%	2.1: SMS 2.2: N/A 2.3: N/A	3.1: 12,56 s (13 s) 3.2: 81.70 % (43,89 %)	4.1: Danish Fire Department: 6.4% Danish Police: 33%
Estonia	1.1: 916 431 (987.273) 1.2: 63,3% 1.3: N/A	2.1: SMS 2.2: 27 (8) 2.3: (N/A)	3.1: 6 (5.6) s 3.2: 88 % (91 %)	4.1: 0,03% (<0.1%)
Finland	1.1: 2 797 000 (3.553.858) 1.2 :112 is the single emergency number 1.3: 29 % (32 %)	2.1: SMS to local numbers of ERCs 2.2: N/A 2.3: N/A	3.1: 4 s (4 s) 3.2: 93 % (94 %)	4.1: 14 % (14 %)
France	1.1: 8 535 278 (24.000.000) 1.2: 13 % (37%) 1.3: 24% (28%)	2.1: "114" for the deaf people 2.2: 112: 127 854 calls corresponding at 7103 cases (each case requires an average of 15 SMS or 11 faxes) 2.3: N/A	3.1: 8 s (14 s), including 6s compulsory automated message 3.2: 49% (28%)	4.1: 43 % (44%)
Germany	The responsibility for the collection of these data is with the local governments. These numbers are, the only collected sporadically.	The responsibility for the collection of these data by the local governments. These numbers are, the only collected sporadically.	The responsibility for the collection of these data by the local governments. These numbers are, the only collected sporadically.	The responsibility for the collection of these data by the local governments. These numbers are, the only collected sporadically.
Greece	1.1: 2.771.066 (3.143.455) 1.2: N/A (30,9%) 1.3: to Coast Guard: 85,3%	2.1: SMS (currently not available for 112 calls/only to Police) 2.2: N/A 2.3: 17.754 (145.199)	3.1: 9 s (9 s) automated message is applicable to "112" service, in order to inform the caller that he	4.1: < 2 % (< 2 %) (data refer to 112 only)

Country	1.1 Number of calls to 112 1.2 % of total emergency calls 1.3 False calls	2.1 Alternative means of access for disabled end-users 2.2 No. of communications to 112 2.3 No. of communications to other numbers	3.1 Average answer time in seconds 3.2 % of calls answered within 10 seconds	4. Call abandon rate
	(1,2%) To Police: 69 % (0,79%) To 112: 98,78 % (99%) Aggregated: 84%		has dialled this particular service and that the conversation will be recorded. 3.2: N/A	
Hungary	1.1: 3 265 347 1.2: N/A 1.3: 80,56%	2.1: N/A – a dedicated portal is under development. 2.2: N/A 2.3: N/A	3.1: 5.28 s 3.2: 92,7%	4.1: 16,05%
Ireland	1.1: 2,455,985 (2,755,274) 1.2: N/A 1.3: 60.5 % (65.1%)	2.1: SMS and Minicom 2.2: 9,089 (16612) 2.3: None	3.1: 0.66 s (0.59 s) 3.2: 99.13 % (99.62 %) within 5 seconds (within 10 s N/A)	4.1: 7.1% (5.33%)
Italy	1.1: 16.000.000 (15.920.951) 1.2: 75% for the Lombardia Region 10% for the National Territory. except the Lombardia Region 1.3: 60% for the 112 NUE service in the Lombardia Region 10% for the National Territory except the Lombardia Region	2.1: SMS, Fax, e-mail Experimental voice responders and text messages managing devices have been setup in specific areas 2.2: N/A 2.3: less than 20 (15 SMS) from users with special needs	3.1: 6-10 s (6-10 s) 3.2: 85 % (83,5)/ 90% (90%) (national territory/Lombardia Region)	4.1: 20,26 % relating to the Lombardia Region; 10% in the remaining national territory (same as in 2013)
Latvia	1.1: 1 924 707 (1.903.517) 1.2: N/A 1.3: N/A	2.1: SMS to 112. 2.2: 47 (38) 2.3: None	3.1: 6 s (6 s) 3.2: 71 % (98 %)	4.1: 21 % (21%)
Lithuania	1.1: 3 817 583 (to all numbers) 1.2: 70,66% 1.3: 30-60 % of false calls of the total number of emergency calls	2.1: 112 SMS under implementation 2.2: N/A 2.3: N/A	3.1: 6,75 s (6,05 s) 3.2: 91.4%	4.1: 15-20 % (same as last year)
Luxembourg	1.1: Administration des services de secours (112) : 406.196 (448.179) calls Police (113) : 153.485 (164.626) calls	2.1: Administration des services de secours : SMS and Fax Police : SMS 2.2: Administration des services de secours : 94 (68) SMS and1 (2) Fax 2.3: 0 (in 2013 Police: 4.027)	3.1: Administration des services de secours : 2.8 (3.2) s Police : N/A (13 s) 3.2: Administration des services de secours :	4.1: Administration des services de secours : N/A Police : N/A

Country	1.1 Number of calls to 112 1.2 % of total emergency calls 1.3 False calls	2.1 Alternative means of access for disabled end-users 2.2 No. of communications to 112 2.3 No. of communications to other numbers	3.1 Average answer time in seconds 3.2 % of calls answered within 10 seconds	4. Call abandon rate
	1.2: 72,58% (73,13%) 1.3: Administration des services de secours: N/A Police : N/A (53,34%)		92.84 (91.28) % Police : N/A (57%)	(21,08)%
Malta	1.1: 501827 (521.812) 1.2: 112 is the single emergency number 1.3: 22.22 % (30.55%)	2.1: it is planned to introduce new technologies such as real-time video, relay services and other services as described in the Reach 112 programme Currently, the Malta Police Force make use of SMS facility through number : 0356 79777119 which is used for instant reporting. 2.2: None 2.3: N/A	3.1: 6 s 3.1: 9 s 3.2: 43.66% (36.67%)	4.1: 33.74 % (28.30%)
Netherlands	1.1: 3,475,118 1.2: 112 is the single emergency number 1.3: Mobile: 46% (67,7%) Fixed: N/A (estimated 25 %)	2.1: Since July 2012 a digital text service available with direct access to 112. Analogue devices can call 0800-8112. 2.2: N/A 2.3: N/A	Mobile calls: 3.1: N/A (3,3 s) 3.2: 93% fixed 97% mobile (95,3%)	4.1: 1.1% fixed 4.9% mobile
Poland[6]	1.1: 18,722,572 (27,182,065) 1.2: 44,8% (46%) 1.3: 36.8%	2.1: 112 SMS planned by the end of 2015 2.2: N/A 2.3: N/A	3.1: 12 s 3.2: 68%	4.1: 34% (24%)
Portugal	1.1: 10.600.000 1.2: 112 is the single emergency number 1.3: 66.3%	2.1: SMS (96 10 10 200) for the deaf citizens operated by the National Guard 2.2: N/A 2.3: N/A	3.1: 4,45s (6 s) 3.2: 90% (93,7%)	4.1: 38,5% (19,3%)
Romania	1.1: 17,038,459 (18.009.181) 1.2: 112 is the single emergency number 1.3: 69,46 % (69,39 %)	N/A	3.1: 3.68 s (3.66 s) 3.2: 94.63% (94.31 %)	4.1: 4.95 % (5 %)
Slovakia	1.1: 1.478.653 (1.607.635) 1.2: N/A	N/A	3.1: 9 s (10.24 s) 3.2: 87.94% (68.21 %)	4.1: 18,67% (19,84%)

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[6] Since the end of 2013 the new Emergency Call System was launched in every Voivodship in Poland, therefore 112 calls are handled by 17 Emergency Call Centres.

Country	1.1 Number of calls to 112 1.2 % of total emergency calls 1.3 False calls	2.1 Alternative means of access for disabled end-users 2.2 No. of communications to 112 2.3 No. of communications to other numbers	3.1 Average answer time in seconds 3.2 % of calls answered within 10 seconds	4. Call abandon rate
	1.3: N/A			
Slovenia	1.1: 992.264 (640 000) 1.2: 51.22% 1.3: N/A	2.1: WAP112, SMS112 2.2: WAP112 – 12 (7); SMS112 – 857 (981) 2.3: N/A	3.1: 4.51 s (6,47 s) 3.2: 100 % (90,72%)	4.1: N/A
Spain	1.1: 29,741,512 (30.251.577) 1.2: 62.45 % (66%) 1.3: 30.40% (33.26%)	2.1: SMS, Assisted calls (Chat), Fax 2.2: 604 (Less than 500) 2.3: Less than 100 (same as in 2013)	3.1: 4.76s Some PSAPs use automated messages (5s - 10s) to filter false calls. 3.2: 91.52 % (94.05%)	4.1:9.79 % (9.67%)
Sweden	1.1: 3 275 995 (3.702.101) 1.2: 112 is the single emergency number 1.3: 40,8% (45,9 %)	2.1: SMS112 - Text telephone calls received by PSAP - Calls through relay services 2.2:. - SMS112: 104 (168) - Text telephone to 112: 163 (111) - Calls through relay services: 100 (142) 2.3: N/A	3.1: 11,57 s (8,6 s) 3.2: 67.6% (76,6 %)	4.1: 21,6 % (7,7 %)
United Kingdom	1.1: total of 35,868,363 to 999 and 112 1.2: 4.47% (2.1%) 1.3: 51.85% (51.70%)	2.1: a. via 112 or 999 SMS and text relay service – requires simple pre-registration of handset. b. via text relay using appropriate terminals using ITU v21 over the PSTN (with access code 18000). 2.2: Aprox. 3500 emergency SMS conversations made in the year/ average of 4 SMS in each direction 2.3: A real time text service using ITUv21 protocol is available for deaf users with special terminals to call 18000. There were an estimated 4000 calls to 18000 from such terminals.	3.1: N/A 3.2: 98.44% (98.63%) were answered within 5 s	4.1: N/A
Iceland	1.1: 202 517 (199.718) 1.2: 112 is the single emergency number 1.3: 32,4% (30%)	2.1: SMS is available for all users, although primarily implemented for the hearing impaired 2.2: 1310 (1303) 2.3: 0	3.1: 4,5 s (4,8 s) 3.2: 96% (91%) of all calls answered within 8 seconds	4.1: 1,2% (1,54%)
Norway	1.1: 737.882 1.2: N/A 1.3: in the 112 PSAP in Oslo: 95,93%	2.1: 1412 emergency text telephone number reserved for people with hearing disabilities 2.2: N/A 2.3: N/A	3.1: 7 s 3.2: 93,8% in 20 seconds	4.1: 18,8%

Country	5. % of total calls when automatic or non-automatic request of caller location is unsuccessful	6 Caller location accuracy and reliability 6.1 Fixed networks 6.2 Mobile networks	7. Average time needed for receiving the caller location by the 112 operator	8.1 Availability of EU roaming call to 112 8.2 Availability of caller location of EU roaming calls	9. Awareness level 9.1: national 9.2: EU
Austria	5.1: N/A	6.1: residential address, see http://www.rtr.at/en/tk/TKG 2003 6.2: Cell/ID (base station number) or location of base station (geographic data). If technically available some mobile operators offer sector information additionally	7.1: N/A	8.1: Yes 8.2: Yes	9.1: (35%) 9.2: (52%)
Belgium	5.1: N/A Exact location information is only provided for fixed calls. (installation address) For mobile : Cell-ID (available to four call-centres 112/100 that operate with CAD/ASTRID-technology, in development for the other (remaining 6) call-centres 112/100).	6.1: registered installation address by the operator reliability fluctuates due to irregular update of changed data by operators. 6.2: Cell ID together with installation address of antenna of operator; reliability is high. Nomadic services remain problematic location data are rarely provided and reliability is highly questionable.	7.1: Fixed: real time if emergency services have access to installation database ; mobile: near real time. (automated pull system)	8.1: Yes 8.2: On request to the PSAP through non-automated procedure	9.1: (65%) 9.2: (61%)
Bulgaria	5.1: 0.805% (0.337%) Period of measurement: 16.10.14- 05.11.14	6.1: address of the calling party, based on calling party number 6.2: coverage of the Cell	7.1: Push method (instant)	8.1: Yes 8.2: Yes	9.1: (88%) 9.2: (70%)
Croatia	5.1: N/A	6.1: public address book. 6.2: Cell Id and angle of coverage	7.1: 10-50 s on a GIS map – not statistically measured.	8.1: Yes 8.2: Yes	9.1: (80%) 9.2: (65%)

Country	5. % of total calls when automatic or non-automatic request of caller location is unsuccessful	6 Caller location accuracy and reliability 6.1 Fixed networks 6.2 Mobile networks	7. Average time needed for receiving the caller location by the 112 operator	8.1 Availability of EU roaming call to 112 8.2 Availability of caller location of EU roaming calls	9. Awareness level 9.1: national 9.2: EU
Cyprus	5.1: 0	6.1: address 6.2: around 30m	7.1 : 20 sec.	8.1: Yes (95%) 8.2: Yes	9.1: (37%) 9.2: (37%)
Czech Republic	5.1: N/A	6.1: Address 6.2: approx. 800m / 70%	7.1: 1 s for fixed/ instant for mobile (push)	8.1: Yes 8.2: Yes	9.1: (59%) 9.2: (61%)
Denmark	5.1: 1,5%	6.1: N/A 6.2: Cell ID: 75% within a range depending on the mobile network infrastructure from 500 m to 5000 m. 112 app is accuracy: 10-60m.	7.1: Instantly. 112 App – 12 s	8: N/A	9.1: (93%) 9.2: (41%)
Estonia	5.1: N/A	6.1: Installation address 6.2: 2G urban: 120-200m; 3G urban 70-150m; rural: 500m-2km	7.1: 2s (2 s)	8.1: Yes 8.2: Yes	9.1: (94%) 9.2: (49%)
Finland	5.1: N/A	6.1: street address information from the commercial directory services database 6.2: Cell ID/Sector ID and more accurate information based on the best available calculation method (depends on the operator)	7.1: 6 s (6 s)	8.1: Yes 8.2: Yes (provided upon request by MNO)	9.1: (97%) 9.2: (61%)
France	5.1: N/A Manual process at the request of PSAP is being automated.	6.1: Mailing Address 6.2:Cell ID	7.1: several minutes (estimated)	8: No	9.1: (16%) 9.2: (33%)
Germany	The responsibility for the collection of these data by the local governments. These numbers are, the only collected sporadically.	6.1: For calls from fixed networks, the technical specifications state that an exact address must be given as the location. This requirement should have largely been implemented by the end of 2014 (including nomadic use of the telephone service provided by the network operator); the only exemptions from the implementation requirement are: a) telephone connections	7.1: a) mobile networks 0 seconds (100% 'push' system) b) fixed networks: 0 seconds in the case of emergency calls from networks in which the 'push' system is already being used; in cases where the 'push'	8.1: Yes 8.2: Yes	9.1: (84%) 9.2: (42%)

Country	5. % of total calls when automatic or non-automatic request of caller location is unsuccessful	6 Caller location accuracy and reliability 6.1 Fixed networks 6.2 Mobile networks	7. Average time needed for receiving the caller location by the 112 operator	8.1 Availability of EU roaming call to 112 8.2 Availability of caller location of EU roaming calls	9. Awareness level 9.1: national 9.2: EU
		to exchanges using ISDN technology (in view of the foreseeable end of the service life of that technology) and b) mixed types of nomadic uses for which solutions at EU level are to be standardised. 6.2: Cell ID Germany will implement more accurate caller location requirements as part of a harmonized European approach.	system has not yet been introduced: 70 seconds with the 'pull' system.		
Greece	5.1: 1,46 %*(5,88%) *Refers only to calls placed to 112	6.1: physical address for fixed telephone connection 6.2: Cell ID, depending on the network: Cell Area, Cell Set, Cell ID, Base station Address, Azimuth, and maximum coverage distance	7.1: 34 min and 56 s (38min and 48 s) For 112 calls.	8.1: Yes 8.2: Yes	9.1: (5%) 9.2: (49%)
Hungary	5.1: 0%	6.1: Address of installation with 100% reliability 6.2: Cell ID; 100% reliability	7.1: 3 s	8.1: Yes 8.2: Yes	9.1: (49%) 9.2: (45%)
Ireland	5.1: 3.18 % (4.26 %)	6.1: 97.39 % (99.14%) of fixed lines have location information. This is broken down as follows: Installation Address Co-ordinates – 25.3 % (21.38%) STD Code match – 10.08 % (7.12%) County only match – 24.33% (36.89%) Townland & County match – 37.68% (33.74%) 6.2: Cell ID – 96.63%	7.1: Instant	8.1: Yes 8.2: Yes	9.1: (31%) 9.2: (33%)
Italy	5.1: 14,01% relating to the Lombardia Region; 18-	6.1: 80 % 6.2: 23% (same as in 2013)	7.1: 3-5 s (same as in 2013)	8.1: Yes 8.2: Yes	9.1: (58%) 9.2: (33%)

Country	5. % of total calls when automatic or non-automatic request of caller location is unsuccessful	6 Caller location accuracy and reliability 6.1 Fixed networks 6.2 Mobile networks	7. Average time needed for receiving the caller location by the 112 operator	8.1 Availability of EU roaming call to 112 8.2 Availability of caller location of EU roaming calls	9. Awareness level 9.1: national 9.2: EU
	20% in the remaining national territory (same as in 2013)				
Latvia	5.1: N/A	6.1: address provided by network operator. 6.2: Cell ID	7.1: 12 s	8.1: Yes 8.2: Yes	9.1: (82%) 9.2: (47%)
Lithuania	5.1: Up to 5 % (same as last year)	6.1: Subscriber's billing address, database renewal – every two months 6.2: Cell ID, 95% of mobile location data must be provided within 20 seconds from call set-up moment.	7.1: 1-2 s (same as in 2013)	8.1: Yes 8.2: Yes	9.1: (85%) 9.2: (41%)
Luxembourg	5.1 : Administration des services de secours : < 1% for fixed caller < 1% for mobile caller (cell ID) No data available for VoIP caller Police : N/A	6.1 Administration des services de secours : High accuracy High reliability No data for VoIP caller 6.2 Administration des services de secours : Cell ID High reliability	7.1 Administration des services de secours : < 1 seconds for fixed and mobile caller Police : N/A	8.1 : Yes 8.2 : Yes	9.1 : (93%) 9.2 : (80%)
Malta	5.1: N/A	6.1: Address of Registered Line as available in the Service Provider database 6.2: Cell ID	7.1: N/A (5-10 min)	8.1: Yes 8.2: Yes	9.1: (63%) 9.2: (34%)
Netherlands	5.1: 12.9%	6.1: Near 100% for fixed calls (Name, ddress, Zipcode, CLI) 6.2: Cell ID	7.1: <2 s	8.1: Yes 8.2: Yes	9.1: (97%) 9.2: (57%)
Poland	5.1: 0%	6.1: detailed address of a network termination point installation Fixed caller location information is obtained from the relevant operator and a centralised location information database managed by the NRA. 6.2: Cell Id/Sector ID/timing Advance: 100m	7.1: Instantly (73 s)	8.1: Yes 8.2: Yes	9.1: (74%) 9.2: (70%)

Country	5. % of total calls when automatic or non-automatic request of caller location is unsuccessful	6 Caller location accuracy and reliability 6.1 Fixed networks 6.2 Mobile networks	7. Average time needed for receiving the caller location by the 112 operator	8.1 Availability of EU roaming call to 112 8.2 Availability of caller location of EU roaming calls	9. Awareness level 9.1: national 9.2: EU
		– 1 km. Geographic location of publicly available telecommunications services user's terminal. Specific requirements laid down by NRA are under consideration – NRA is authorised to settle specific requirements in decision for an operator.			
Portugal	5.1: <0,1%	6.1: N/A 6.2: (see table below)	7.1 <2 s	8.1: Yes 8.2: Yes	9.1: (92%) 9.2: (34%)
Romania	5.1: 2% (1.1 %)	6.1: 97.20 % (98.35%) from fixed networks receive address information with accuracy (updating databases monthly) 6.2: 99.27 % (98.86 %) from calls have a valid network cell ID and sector ID	7.1: 3 s (10 s)	8.1: Yes 8.2: Yes	9.1: (95%) 9.2: (71%)
Slovakia	5.1: 18% (14.24%) (but the request is usually repeated with positive result)	6.1: N/A 6.2: N/A	7.1: N/A	8.1: Yes 8.2: Yes	9.1: (81%) 9.2: (69%)
Slovenia	5.1: 0%	6.1. Address 6.2. Cell ID	7.1: 4 s (4 s)	8.1: Yes 8.2: Yes	9.1: (86%) 9.2: (46%)
Spain	5.1: 17.68 % (16,78%) –	6.1: Subscriber's address. 6.2: Cell ID, Sector ID	7.1: 1.34 s (1.26 s)	8.1: Yes 8.2: Yes	9.1: (70%) 9.2: (23%)

Portugal 6.2 mobile networks:

Radius (m)	%
100	0,95%
250	3,87%
500	7,33%
750	8,82%
1000	12,71%
2000	23,03%
4000	28,61%
10000	10,24%
20000	3,40%
40000	1,03%

Country	5. % of total calls when automatic or non-automatic request of caller location is unsuccessful	6 Caller location accuracy and reliability 6.1 Fixed networks 6.2 Mobile networks	7. Average time needed for receiving the caller location by the 112 operator	8.1 Availability of EU roaming call to 112 8.2 Availability of caller location of EU roaming calls	9. Awareness level 9.1: national 9.2: EU
	Includes cases where location information is available but cannot be processed by the PSAP or is not sufficiently accurate				
Sweden	5.1: 8,2 % (8,6 %)	6.1: N/A 6.2: N/A	7.1: <2 s (0,9 s)	8.1: Yes 8.2: Yes	9.1: (97%) 9.2: (48%)
United Kingdom	5.1: 5%	6.1: street address, post code 6.2: Cell ID	7.1: <2 s	8.1: Yes 8.2: Only for 20% of the calls.	9.1: (7%) 9.2: (18%)
Iceland	5.1: N/A	6.1: 100% Correct location IP based phone calls 50% correct 6.2: Cell ID provided reliably in 99,9% (90%) of all mobile calls	7.1: 1s to 1 minute	8.1: Yes 8.2: Yes	9.1: N/A 9.2: 54,4%
Norway	5.1: 45,3 % of the manual requests	6.1: Installation address and registered names 6.2: Cell ID, timing advance, sector ID	7.1: 3.44 s	8.1: Yes 8.2: Yes	9: N/A