

TABLE 1 – EMERGENCY NUMBERS, USAGE AND ORGANISATION

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Belgium	<p>100 - Medical Assistance/ Fire Brigade/ Civil Protection</p> <p>101 - Police</p> <p>070245245 - Anti-poisoning Centre</p> <p>080032123 / 02 6499555 - Suicide Prevention (French/Dutch)</p> <p>106/107/108 - Moral Assistance (Dutch/ French/ German)</p> <p>102/103 - Child Listening Services (Dutch/French)</p> <p>110 - Child Focus.</p>	<p><u>Estimated share of hoax/false calls:</u></p> <p>112/100/101 - number of hoax calls limited but false calls can run up to 90% during certain periods.</p> <p>Other emergency numbers - hoax calls about 33% going up to 90% in peak periods (WE, school holidays); false calls 20-27%</p>		<p>112 calls are routed in the same way as 100 calls. 112, 100 and 101 calls benefit from priority routing.</p>
Bulgaria	<p>112 - currently only available in Sofia; to be introduced nation-wide by the end of 2008. The current national numbers will then be phased out:</p> <p>150 - ambulance</p> <p>166 - police</p> <p>160 - fire brigade</p>	<p><u>Number of calls:</u></p> <p>112 - 60 000 (in Sofia) of which 3000 real emergencies</p> <p><u>Estimated share of hoax/false calls:</u></p> <p>85-95% for 112</p>	<p>The 112 system is currently being established and will consist of 6 centres (one per economic region). The centres will be interchangeable.</p>	<p>Calls will be routed to two centres that will dispatch the calls to the other ones via IP. Call dispatching will be automatic without call taker intervention. The dispatching will be software driven, based on caller location, workload of call centres and other criteria.</p>

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Czech Republic	150 - fire rescue 155 - medical service 156 - municipal police 158 - police	<u>Number of calls:</u> 112 - 326 971 150 - 47 541 155 - 168 720 156 - 152 670 158 - 180 690 <u>Estimated share of hoax/false calls:</u> 60% to 80% for 112 and 30% for national emergency numbers.	All calls to 112, mobile calls to 150 from outside the City of Prague and fixed calls to 150 in 61 districts are handled by 14 regional emergency telephone call centres (TCTV 112) managed by Fire Rescue Service. In the remaining 16 districts and the City of Prague, fixed calls to 150 are routed to the traditional call centres of the Fire Rescue Service. The implementation of a call handling based on a single technological platform for all emergency calls is being considered.	Emergency calls are routed to the local exchange and then directly transferred to the geographical number of the relevant PSAP. The TCTV 112 system is connected to the universal telephone service provider's network at three sites. An automatic backup functionality is in place to ensure that the system continues working should connection fail at one of the sites. This backup also works as capacity spill-over if a TCTV is overloaded.
Denmark	No other emergency numbers	<u>Number of calls:</u> 65 250 <u>Estimated share of hoax/false calls:</u> 75% of calls do not require emergency follow-up because they are not considered emergencies or are made in error or accidentally.	The national fire brigade handles calls within the Greater Copenhagen. Elsewhere, emergency calls are handled by seven PSAPs of the police.	Emergency calls are routed by all operators to the network of the universal service provider, who, in turn, routes the calls to the relevant PSAP.

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Germany	110 - police	<p><u>Number of calls:</u> 112 - 1 380 000 (40% of total emergency calls) 110 – 2 055 000</p> <p><u>Estimated share of hoax/false calls:</u> 10 to 50% of all calls, going up to 85% for mobile calls. The share is lower for 110.</p>	In several areas, PSAPs handling 112 and 110 are collocated; elsewhere it is possible to put through calls from a 112 PSAP to a 110 PSAP and vice versa.	No difference in the routing of 112 and 110 calls. Calls are routed to the specific telephone number of the appropriate PSAP based on the location of the call.
Estonia	110 – police Reflection started on uniting emergency numbers	<p><u>Number of calls:</u> 112 - 150 000</p> <p><u>Estimated share of hoax/false calls:</u> 1-2%</p>	The authority responsible for handling 112 calls is the Emergency Response Centre (ERC) of the National Rescue Board under the Ministry of Interior. There are four regional Emergency Response Centres. Calls to 112 can be put through to the PSAP handling 110 if they concern the Police.	In the event where one regional Emergency Response Centre is saturated calls are automatically forwarded to another regional ERC.
Ireland	999 - all emergencies	<p><u>Number of calls:</u> 999 and 112 – 400 000</p> <p><u>Estimated share of hoax/false calls:</u> Up to 80% for both 999 and 112</p>	Two PSAPs handle emergency calls	

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Greece	100 - police 199 - fire brigade 166 - emergency medical services 108 - coast guard	<u>Number of calls:</u> 112 - 250 000 100 – 400 000 (in Attica Region) 199 – 72 000 (in Attica Region) <u>Estimated share of hoax/false calls:</u> 100 - approx. 15% of calls are false (data about Attica Region)	One PSAP located in the capital Athens handles 112 calls	
Spain	Managed at <u>national</u> level: 062 and 091 - two different police bodies. Managed at <u>regional</u> level: 061 - medical assistance 085 - fire brigade 1006 - civil protection 088 - police Managed at <u>local</u> level: 080 - fire brigade 092 - police	<u>Number of calls:</u> 112 - 3 312 000 (73.7%) 091/062/088 - 582 000 (13%) Other regional numbers - 740 000 (13.3%) <u>Estimated share of hoax/false calls:</u> 63.3% for 112 (22% false calls and 41.3% hoax calls), mainly from SIM-less mobile phones.	Emergency centres are a regional competence. There are 19 emergency centres and also backup emergency centres in some regions.	Call routing is based the origin of the call. 112 is translated into the appropriate geographic number of the emergency call centre concerned.

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
France	<p>15 - ambulance 17 - police-gendarmerie 18 – fire service.</p> <p>In addition, there are three other numbers for social emergencies.</p>	<p><u>Number of calls:</u> 112 - 1.1 million (0,37 million handled by “15” call centres and 0, 74 million handled by “18” call centres) 15 - 1.32 million in addition to 112 calls 18 – 0.94 million in addition to 112 calls</p>	<p>Call centres handling 112 calls are designated by Prefects of each Department: one third has designated "15" call centres to handle 112 calls and two thirds have designated "18" call centres to handle 112 calls.</p>	<p>All emergency calls are directly routed to the territorially competent call centre. There is routing table in each department that operators must use for routing calls. Work is underway to create a national database.</p>
Italy	<p>113 - police 118 - medical emergencies 114 - child emergencies 115 - fire department</p>	<p><u>Number of calls:</u> 112 - 2.5 million 113 - 667 000</p>		<p>Emergency calls are routed to the nearest competent PSAP</p>
Cyprus	<p>199 -all emergencies</p>	<p><u>Number of calls:</u> 112 and 199 - 15 000</p>	<p>Emergency calls are handled by the police at district level.</p> <p>Project has been started to prepare specifications for a new 112 System and its infrastructure.</p>	<p>Call routing is based on the place of origin of the call.</p>

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Latvia	The existing national numbers are only available from fixed networks: 01 - fire fighting and rescue service; 02- national police; 03- emergency medical care	<u>Number of calls:</u> 112 and 01 – 140 000 <u>Estimated share of hoax/false calls:</u> 112 – 52%	112 calls are handled by the State Fire-Fighting and Rescue Service in its 26 regional centres and the main centre in the capital Riga. Where necessary, 112 calls are put through to the PSAP of the national police, emergency medical care and gas emergency service.	112 calls are routed to the appropriate regional centre based on the location of the call origination. In the case of overloading or technical failure calls are forwarded to the main call centre in Riga.
Lithuania	102 or 022 or 02 (depending on the network) - Police 101 or 011 or 01 (depending on the network) - Fire-and-rescue service 103 or 033 or 03 (depending on the network) - ambulance service In future, these numbers will be withdrawn and 112 will become the sole number.	<u>Number of calls:</u> 112 - 200 000 01, 011, 101 - 60 000 02, 022, 102 - 70 000 03, 033, 103 - 125 000 <u>Estimated share of hoax/false calls:</u> Approx. 50 - 60%	112 calls in the capital Vilnius and its surroundings are handled by the Emergency Response Centre under the Ministry of the Interior. Elsewhere, 112 calls are handled by local police stations. Calls to the national emergency numbers are handled by local fire and rescue, police and ambulance services with the exception for Vilnius, where calls to police and fire and rescue national numbers are handled by the Emergency Response Centre. It is planned in the future to establish a common, centralized and IT-based system of emergency call handling.	Calls are routed on the basis of the geographic principle according to the service area of the relevant PSAP.
Luxembourg	113 - police	<u>Number of calls:</u> 112 - 39 000 113 - 11 500 <u>Estimated share of hoax/false calls:</u> 21,47% for 112	The emergency authority responsible for handling calls to 112 is the Rescue Services Agency of the Ministry of Internal Affairs. Calls to 112 can be put through to 113 and vice-versa.	All calls are routed directly from the network operators to the Rescue Services Agency.

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Hungary	<p>104 – ambulance 107 - police 105 - fire brigade / civil protection</p> <p>It is planned to abolish national numbers in the future</p>	<p><u>Number of calls:</u> 112 - 684 030 107 - 108 510 104 - 306 690 105 - 528 900</p> <p><u>Estimated share of hoax/false calls:</u> 90-95% for 112 and 5-10% for 107. A detailed breakdown per emergency number available: 105 - 17 630 calls/day of which 5 047 fake, 15 138 wrong number and 14 583 false; 104 – 10 223 calls/day of which 598 fake; 107 – 3617 calls/day of which 108 fake, 905 wrong number and 109 false; 112 – 22 801 calls/day of which 10 330 fake, 5 797 wrong number and 6 936 false</p>	<p>PSAPs handling 112 calls are under the authority of the Police. In future it planned to set up three integrated emergency calls centres</p>	<p>112 calls are translated and routed as calls to the national emergency number. In the event of a technical failure, 112 calls are rerouted to the Budapest Police Headquarters.</p>

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Malta	Prior (legacy) emergency numbers can still be used: 191 – police 196 - ambulance 199 - civil protection	<u>Number of calls:</u> 112 - 22 600	A single 112 call centre (PSAP) is operated by Malta Police Force that coordinates the intervention of the relevant emergency services.	112 calls are routed to the incumbent PSTN operator and subsequently to the PSAP. When calls cannot get through, they are automatically diverted to the Civil Protection Department (CPD) acting as a backup PSAP.
Netherlands	No other emergency numbers	<u>Number of calls:</u> 47 500 of which 16 000 real emergency calls <u>Estimated share of hoax/false calls:</u> About 66%.	A Single Public Safety Answering Point (PSAP) of the National Police Agency handles all mobile 112 calls. All fixed line calls are routed to one of the 24 regional PSAPs that forward them to the appropriate Emergency Centre. Reorganisation of the entire emergency response structure is under way. In the new structure all calls will be routed to the PSAP of the National Police Agency and, if possible, directly connected without human action to the appropriate emergency service.	All 112 calls are automatically routed to the appropriate PSAP.

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Austria	122 - fire department 128 - gas-related emergencies 133 - police 140 - mountain rescue 141- duty physicians 142 – telephone counselling 144 - rescue/ ambulance service 147 - emergency services for children and young people	<u>Number of calls:</u> 112 - 65 472 122 - 36 142 133 - 131 701 144 - 144 833	112 calls are handled by the Federal Police at the district level	Calls are routed depending on the caller location to the relevant PSAP.
Poland	997 - police 998 - fire brigade 999 - ambulance 984 - river rescue service 985 - mountain/sea rescue service 986 - municipal police 991 - power stations brigade 992 - gas brigade 993 - heating brigade, 994 - waterworks brigade	<u>Number of calls:</u> 112 - 300 000 998 – 270 000 <u>Estimated share of hoax/false calls:</u> 112 - approx. 70% 998 - approx. 50% (data for 01.01.2007 – 30.09.2007)	Calls to 112 and 998 are handled by 330 PSAPs in case of calls from fixed networks and by 92 PSAPs in case of calls from mobile networks (situation as of 30.09.2007)	Call routing is based on special routing numbers according to a mapping database.

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Portugal	<p>117 - fire emergency (continental part of Portugal, not available in Madeira or Azores).</p> <p>Former (legacy) general emergency number 115 can still be used</p>	<p><u>Number of calls:</u> 112 (and 115) - 1 321 523 117 - 198 904</p>	22 PSAPs handle 112 calls. A new 112 service model is in preparation.	Emergency calls are routed through PT Comunicações, S.A., which delivers emergency calls to PSAPs (112 and 115) and Fire Departments (117). Calls to the legacy number 115 are routed in the same way as 112 calls.
Romania	<p>112 is the main nationwide number. The existing legacy national numbers will remain in operation for a limited period of time: 961 - ambulance 955 – police 981 - fire brigade</p>	<p><u>Number of calls:</u> 112 – 3 054 000</p> <p><u>Estimated share of hoax/false calls:</u> 91% for 112 calls in 2007</p>	One PSAP in Bucharest and in the main city of each county.	All calls from fixed and mobile networks are routed to the fixed incumbent's network and then onwards to appropriate PSAP of the county, from which the call originates. Calls to the existing legacy national numbers are routed to 112.
Slovenia	113 - police	<p><u>Number of calls:</u> 112 - 70 000 113 – 58 360</p> <p><u>Estimated share of hoax/false calls:</u> Less than 10%</p>	112 calls are handled by 13 PSAPs with two operators on duty. 112 calls are immediately put through to the Police PSAPs, if necessary.	Emergency calls are routed over the incumbent's network to specific geographic numbers in each region.

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
Slovakia	150 – fire and rescue 155 - medical emergency 158- police 159 – municipal police	<u>Number of calls:</u> 112 - 383 000 150 – 33 000 155 - 100 000 158 – 102 000 <u>Estimated share of hoax/false calls:</u> 112 - 92% are false national numbers - about 10-15%	112 calls are handled by 8 PSAPs - coordination centres at the county level - of the integrated rescue system. The PSAPs are operated by county authorities. Fire and rescue service has 50 PSAPs and the police has 44 PSAPs.	Calls to 112 and 155 are routed to the nearest of the 8 PSAPs of the integrated rescue system. Calls to 150, 158 and 159 are routed, respectively, to the nearest PSAP of the fire and rescue service or to the PSAP of the State or municipal police.
Finland	10022 - police 02041000 (and local numbers) - maritime rescue services	<u>Number of calls:</u> 112 - 200 000 10022 - 50 000 Maritime rescue numbers - 150 <u>Estimated share of hoax/false calls:</u> Approx. 27% of 112 calls in 2007, of which 16% hoax, 16% silent and 68% false.	There are 15 regional emergency response centres (ERC) for 112 (and 10022) and an additional one in Åland Islands. There are three response centres for the maritime rescue services.	112 (and 10022) calls are routed to the ERC nearest to the caller. The ERC for each municipality area is defined by the Ministry of Interior. Call routing for maritime rescue services (02041000) is based on the same principle. Their three regional centres also have their local numbers that can be used to call them directly.
Sweden	No other emergency numbers	<u>Number of calls:</u> 300 000 <u>Estimated share of hoax/false calls:</u> Approx 60 %.	Calls are handled by 18 emergency centres of SOS Alarm, a company owned by the State, regional and local authorities. When needed, for example, during major accidents or storms the co-operation between the centres is extensive.	An Identification Plan of Municipalities is used to map the origin of the call (geographical area) and type of access (PSTN, PLMN, IP-based etc.) into a specific code. This code is subsequently used to route the call to the appropriate emergency centre.

	Other emergency numbers beside 112	Monthly call statistics, share of hoax/false calls	Structure of Public Safety Answering Points (PSAPs)	Call routing
United Kingdom	999 - all emergencies	<p><u>Number of calls:</u> 112 and 999 - 2.8 million</p> <p><u>Estimated share of hoax/false calls:</u></p> <p>For mobile calls (both 112 and 999) - 44%; For fixed calls - 28% for calls to 999 on BT's network and 93% for calls to 112 on BT's network. About 1% of genuine calls connected to EAs that originate in BT's network are 112 calls</p>	<p>99.4% of 999 and 112 calls from all access networks (fixed, mobile GSM, and VoIP) are answered by the same Stage 1 PSAPs run largely by two CPs - BT (5 PSAPs) and Cable and Wireless (2 PSAPs). The other 0.6% of calls are handled by Kingston Communications which provides fixed line services in Kingston upon Hull and Global Communications which covers the railway infrastructure.) Other CPs contract with either BT or C&W to handle their emergency calls.</p> <p>These calls are then onward connected to around 220 stage 2 PSAPs run by the Emergency Authorities ("EAs") (Fire, Police, Ambulance & Coastguard). The Emergency Authorities are operated at county or regional level and are financed through a mixture of local and national government funds. 112s and 999s are answered with same priority.</p>	<p>112 and 999 calls from mobile networks and other CPs for which the BT PSAP handles calls are indistinguishable for BT's stage 1 PSAP operators - all sent to BT as 999s. CPs only have to route 999 and 112 calls to one of the stage 1 PSAPs. The emergency calls are routed through the public network but are prioritised over normal voice calls. The Stage 1 PSAPs use information automatically provided in the voice call signalling to match the caller to the responding local EA. For fixed lines, the telephone number is used to look-up the registered installation address for fixed lines on customer data securely provided for the PSAP's emergency database - then the post-code of the address is matched against the appropriate local stage 2 PSAP's (EA's) catchment area. For mobile calls the cell identity is used along with a knowledge of cell coverage area to match caller to an EA catchment area. Calls are then onward connected to the appropriate stage 2 PSAP (EA).</p>

TABLE 2 – AVAILABILITY FOR MOBILE AND VoIP USERS

Note: unless otherwise specified, the information provided applies to calls to both 112 and national emergency numbers, where applicable (see ‘Table 1’ for details on emergency numbers).

	Availability over Mobile networks				Availability from VoIP telephones
	For users of international roaming services	Over another available domestic network when subscriber network not available (national roaming)	From handsets without SIM card	From handsets with SIM cards that are blocked or expired or with foreign SIM cards that are not authorised to roam	
Belgium	Yes	No	No	Yes for ‘expired’ SIM cards	Provision of access is mandatory for VoIP considered as PATS. Nomadic VoIP services may either not provide access or not provide location data.
Bulgaria	Yes	Yes	Yes	Yes	Technically possible but calling party location is problematic.
Czech Republic	Yes	Yes	Yes for 112	Yes for 112	Access depends on the VoIP service provider
Denmark	Yes	Yes	Yes	Yes	Yes if the VoIP operator enables subscribers to make outgoing calls to numbers in the Danish numbering plan.
Germany	Yes	Yes	Currently ‘Yes’ for 112 only, but ‘No’ as from the 2 nd half of 2008	Handled like SIM-less calls	Yes in principle as from 2009

	Availability over Mobile networks				Availability from VoIP telephones
	For users of international roaming services	Over another available domestic network when subscriber network not available (national roaming)	From handsets without SIM card	From handsets with SIM cards that are blocked or expired or with foreign SIM cards that are not authorised to roam	
Estonia	Yes	Yes	Yes	Yes	Yes, for users of IP telephones connected to IP PBXs.
Ireland	Yes	Yes	Yes	Yes	Depends on the VoIP service
Greece	Yes	Yes for 112	Yes for 112	Yes for 112	VoIP providers are obliged, subject to technical feasibility, to provide for access to 112 and national emergency numbers free of charge.
Spain	Yes	Yes	Yes	Yes	Yes, for VoIP services considered as non-PATS that use numbers from the national numbering plan. In the case of one VoIP operator 112 is the only available emergency number.
France	Yes	Yes	No	Yes for blocked SIM No for expired and foreign SIM cards that are not authorised to roam in France	112 is possible for VoIP calls established through a “Box” and calls are correctly routed to the nearest PSAP. Some operators enable their nomadic VoIP customers to use the “Box” of other customers of the same operator that also enable access to 112.

	Availability over Mobile networks				Availability from VoIP telephones
	For users of international roaming services	Over another available domestic network when subscriber network not available (national roaming)	From handsets without SIM card	From handsets with SIM cards that are blocked or expired or with foreign SIM cards that are not authorised to roam	
Italy	Yes	No , unless a commercial national roaming agreement exists	Yes	Yes for blocked and expired SIM cards; No for foreign SIM cards not authorised to roam in Italy	Access to emergency services is provided by VoIP services considered equivalent to PATS. Also nomadic VoIP services are subject to legal regulation to provide access.
Cyprus	Yes	No	No	No	Yes for VoIP services provided at a fixed location
Latvia					
Lithuania	Yes	Yes	Yes	Yes	Yes for VoIP service providers recognised as PATS but it may be subject to certain conditions.
Luxembourg	Yes	Yes	Yes	Yes	The accessibility depends on the features of the device and software used.
Hungary	Yes (roamers from the USA can also call 911)	Yes	Yes	Yes	No
Malta	Yes	Yes	Yes	Yes	Yes for VoIP services classified as PATS

	Availability over Mobile networks				Availability from VoIP telephones
	For users of international roaming services	Over another available domestic network when subscriber network not available (national roaming)	From handsets without SIM card	From handsets with SIM cards that are blocked or expired or with foreign SIM cards that are not authorised to roam	
Netherlands	Yes	Yes	Yes	Yes	Yes for VoIP services classified as PATS. If possible, the call is routed to a regional PSAP, if not the call is routed to the PSAP of the National Police Agency. Also some other VoIP applications provide access to 112.
Austria	Yes	Yes	Yes	Yes	Yes, if the VoIP service enables calls to other telephone numbers.
Poland	Yes	Yes	Yes	Yes	Yes in most cases
Portugal	Yes	Yes	Yes	Yes	Yes, if the service is provided with a number of the National Numbering Plan (including 30xxxxxxx – Nomadic Services).
Romania	Yes	No	No	Yes	Yes for VoIP users who have access to the public telephone network. Emergency calls from Internet are neither standardized nor regulated.
Slovenia	Yes	Yes	No	Yes	Yes

	Availability over Mobile networks				Availability from VoIP telephones
	For users of international roaming services	Over another available domestic network when subscriber network not available (national roaming)	From handsets without SIM card	From handsets with SIM cards that are blocked or expired or with foreign SIM cards that are not authorised to roam	
Slovakia	Yes	Yes	Yes for 112	Yes for 112; for calls to the national numbers availability depends on the operator	Yes for VoIP services recognised as PATS
Finland	Yes	Yes	Yes for 112	Yes for 112	Yes, provided that VoIP subscribers can make normal E.164 calls.
Sweden	Yes	Yes	Yes	Yes	Users of VoIP services allowing for calls to numbers in the Swedish numbering plan can in most cases call 112. These services are usually implemented using an analogue telephony adapter to enable the use of standard PSTN phones. The availability of access to emergency numbers from computer-based VoIP applications depends on the service provider; in most cases emergency numbers are available.
United Kingdom	Yes	No , but issue under consideration	No	Yes for barred SIM (eg for non-payment), but ' No ' for terminated SIM and SIM not authorised to roam in the UK	Access is increasingly provided by VoIP services that can access the public telephone network to make outgoing, or outgoing/incoming voice calls. It is mandatory for access providers of such VoIP services to do so by September 2008.

TABLE 3 – CALL HANDLING

Note: unless otherwise specified, the information provided applies to calls to both 112 and national emergency numbers, where applicable (see ‘Table 1’ for details on emergency numbers).

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
Belgium		10 sec. max.			
Bulgaria		Approx. less than half sec.	1-5 sec.	Approx. 2 calls per week are in foreign languages. PSAP operators can answer calls in English, French, German and Romanian. English is mainly used.	
Czech Republic	0% in January 2008 for all emergency numbers from both fixed and mobile phones	In January 2008, the call set-up time ranged from 0.69 sec. (fixed) and 0.77 (mobile) for 112 calls to 2.01 sec. (fixed) and 2.55 sec. (mobile) for 158 calls.	For 112 and 150 calls handled by the TCTV system, the total response time is 3.1 sec. consisting of 0.5 sec. of ringing signal and 2.6 sec. of automatic message indicating that the call is an emergency call. All these calls are responded within 20 sec.	About 3 % of all calls are handled in a foreign language of which 50% in English, 30% in German, 10% in Russian and 10% in other languages. All TCTV 112 operators must be able to speak either English or German. Some of them can also speak other languages. An overview of the language skills of operators is maintained within the system and calls can be transferred to a free operator who speaks the relevant language. The application software includes an auxiliary language expert system for the formulation of questions in six languages: English, German, French, Italian, Spanish and Russian.	In 2007, approx. 37% of calls received by the TCTV 112 system were terminated by caller during the automatic “emergency call” message. Approx. 5.5% of the remaining calls were handled by units of the Integrated Rescue System. Other calls were either terminated by the operator, or advice was provided over the telephone, or they were transferred to other specific services (e.g. the Samaritans).

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
Denmark	All calls get through	A few sec.	Average 20 - 25 sec.	All PSAPs can handle calls in English	Follow-up action required for about 25% of calls
Germany	No specific statistics for emergency calls. Average probability of successful call set-up in telephone networks is better than 97%	Estimated to be the same as for other local calls: approx. 2 sec for PSTN access and about three times as long for GSM and VoIP access	On average, between 5 and 20 sec., rising up to 1 min. in case of saturation	1% of all calls are in foreign languages. Conversation in English possible in most cases and also in the language of the neighbouring country in border areas.	Operational action, i.e. dispatch of emergency units, normally within 1 min. in the case of 20-50% of real emergency calls. Advice to callers provided pending arrival on the spot.
Estonia			No regulation but 10 sec. is the target	40-50% of calls are in Russian; 2-4% in other languages (mainly Finnish, English). The call is answered by operator who is most skilled in the language concerned	
Ireland			Between 0.7 and 1 sec.		
Greece		A few sec.	112 - 9 sec. 100 - 1-5 sec. for 86% of calls and 6-20 sec. for 13% of calls (data about Attica Region) 199 - a 'few' seconds (data about Attica Region)	4-5% of 112 calls are made in foreign languages. The PSAP can answer 112 calls in English or French and calls in other foreign languages can be transferred to the staff serving national emergency numbers on the same premises. As regards 199, only 0.001% of calls are handled in foreign languages, such as English, Albanian and Pakistani.	Out of approx. 250 000 112 calls per month, assistance is dispatched in response to about 800 calls

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
Spain	The share of unsuccessful calls is slightly lower than for national calls overall - i.e. average of 0.79% for mobile networks and 0.37% for fixed networks.	Call set-up time is similar to that for national calls overall - i.e. 3.19 seconds for mobile service and 1.45 seconds for fixed service.	<p>The average response time for 112 PSAPs that provided information was 6.5 seconds. 97% of the calls were answered in less than 20 seconds.</p> <p>The average response time for PSAPs handling other national emergency numbers that provided this information was 14 seconds.</p>	The share of calls in foreign languages is less than 1%. All 112 emergency centres can answer calls in English, 9 centres in French and some centres in German, Arabic, Portuguese and Italian. Specific arrangements include automatic translation, on-call interpreters and agreements with other emergency services.	Some 112 centres produce statistics about the type of emergencies, follow-up actions and gravity of the emergency.
France				It is possible to answer calls in English. In addition, using the services of an interpretation agency through a conference call enables conversations in more languages. Some call centres start to be fitted with automatic translation devices.	
Italy					
Cyprus					
Latvia			4-5 sec. for 112	112 calls can be answered in Russian. Less than 1% of calls are made in other foreign languages.	

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
Lithuania	Approx. 25% (for operators storing this data)	Up to 9 sec. (for those fixed network operators that store this data)	4-20 sec (according to those fixed network operators that store this data)	Approx. 25% of calls are made and answered in foreign languages, of which 90% are calls in Russian, 9.9% in Polish and the remaining 0.1% in other languages (English, German). All PSAP operators speak Russian and Polish and the PSAP seeks to ensure the presence of at least one English and one German-speaking operator in each shift.	
Luxembourg				For 112 the share of calls made in foreign languages is 0,39%	
Hungary			5-10 sec (followed by 20-30 sec pre-recorded message)	3-5%, higher during tourist seasons. Call handling is possible in English and German and also in the languages of neighbouring countries in border areas.	40-50% of calls have follow-up actions, mostly oral advice. For 5-10 % of calls emergency unit is dispatched immediately. The number of calls involving follow-up action are as follows (per day and per emergency number): 104 - 2 420 105 – 934 112 - 2 501 107 - 555
Malta				As a rule Maltese PSAP presently handles calls in Maltese and English.	Information available on the number of calls forwarded to the various emergency entities - Police, Civil Protection, hospitals, Armed Forces etc.

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
Netherlands	The overall share of calls not answered by PSAPs is less than 1%		90% of calls are answered within 10 sec.	5% of calls are in German, English, French, Polish and other European languages. PSAP operators are trained to speak English and German. Interpretation available for other languages.	
Austria			Few seconds	112 call handlers are normally able to answer calls also in English.	Operational follow-up (dispatch of a police force team) in relation to 30-35% of calls to 112 and 133 (annual average in the capital Vienna)
Poland					About 6% of the total of 112 and 998 calls are dispatched to the police and about 3.5% are dispatched to ambulance services (data for 01.01.2007 – 30.09.2007)
Portugal	0.45 - 4%	1.16 sec. for fixed 6.39 sec. for mobile	6 - 19.73 sec		

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
Romania			9 sec. on average	Very few 112 calls in 2007 were in foreign languages. 73.3 % of call handlers can answer calls in English and certain can answer calls in French (17.1%), Hungarian (6.5%), German (2.5 %) as well as Russian, Italian and Spanish (0.6-0.3%). Information about foreign language capabilities of call handlers in other PSAPs is constantly available and conference calls can be set up with a call handler in another PSAP if required.	
Slovenia	0.1 - 1.4%	1.5 – 6 sec. in 80% of cases	3 -5 sec.	Less than 1% of calls are in foreign languages, mostly in English, German, Hungarian and Italian. PSAP operators are trained in languages and foreign languages calls can be forwarded to another PSAP with qualified staff on duty	60% - no emergency and no follow-up 20% - intervention by emergency services 20%- advice
Slovakia		A few sec.	On average, between 5 and 20 sec., rising up to 1 min. in case of saturation	About 2% of calls are handled in foreign language. The PSAPs can answer 112 calls in English, Hungarian, German, Russian and Polish.	

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
Finland	Performance considered satisfactory and better in the case of 112 calls than in the case of ordinary telephone calls	Performance considered satisfactory	10 sec or less for 71% of calls in 2006	In addition to official languages (Finnish and Swedish), 112 calls are handled in English. Interpretation service is available for some other languages (e.g. German, French, Russian). Calls to the maritime rescue service are handled in addition to Finnish and Swedish also in English and interpretation service is available for Russian.	45% of 112 calls dispatched to the appropriate operational unit fire brigade, police etc.
Sweden	Considered to be similar as for ordinary telephone calls	Considered to be similar as for ordinary telephone calls	9.1 sec. on average. The target is 8 sec., which should be achieved in 2009 with a change of the technical platform.	Estimated to be below 1% but the share is increasing. In the majority of cases English is used. Knowledge of English is obligatory for PSAP call operators. A new interpretation service covering at the beginning 10-15 languages and later on a considerably bigger number of languages is expected to be launched in spring 2008	15 % can be defined as ambulance calls, 2 % as rescue service and 20 % as police calls. Sometimes advice is sufficient.

	Unsuccessful call ratio	Call set-up time	Response time	Calls in foreign languages and foreign language capabilities	Follow-up actions
United Kingdom			<p>In June 06 – July 07, the PSAP response time was (data covers 99.5% of all emergency calls):</p> <ul style="list-style-type: none"> - in BT PSAP - 98.0 % of calls were responded within 5 sec. and 99.9% of calls within 20 sec.; - in C&W PSAP - 94.6% of calls were responded within 5 sec. and 98.1% of calls within 20 sec. 	<p>Some stage 2 PSAPs have the facility to conference-in language support from organisations that offer it on a per call basis.</p>	<p>Of calls answered in stage 1 PSAP, approximately 60% are onward connected to the stage 2 PSAPs. Of these onward connected calls about 55% are connected to the Police (including calls where no request is made but there is indication that a problem exists), 39% to the Ambulance, 6% to the Fire with less than 1% to the Coastguard. In the case of calls passed to the Police, more than 50% do not result in immediate deployment of a response. The Fire and Rescue services mobilise a fire appliance in response to about 92% of calls.</p>

TABLE 4 – CALLER LOCATION

Note: unless otherwise specified, the information provided applies to calls to both 112 and national emergency numbers, where applicable (see ‘Table 1’ for details on emergency numbers).

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Belgium	‘Pull’; caller location provided only for calls to 112 and national numbers 100 and 101.		Central database operated by the US provider and updated within 24 hours or next working day at the latest. All fixed operators are under obligation to provide data to this database.	‘Pull’, system to be improved by August 2008. Caller location provided only for calls to 112 and national numbers 100 and 101.		Cell ID	Given that provision of caller location is mandatory for all 112, 100 and 1001 calls, some VoIP service providers block access to emergency services
Bulgaria	‘Push’	As soon as the call arrives	Source: central database for fixed subscribers currently only covers Sofia. It is planned to produce a comprehensive database to be updated twice a month. It will be stored in the Sofia site with a backup in the Ruse site.	‘Push’	As soon as the call arrives	Cell coordinates, displayed in GIS. In cities the accuracy is from 500 m to 8 km, outside cities up to 40 km.	Caller location available for fixed VOIP but correctness of the location is not guaranteed for nomadic VOIP users.

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Czech Republic	'Pull'; location information is obtained for 96.23% of requests regarding 112 and 150 calls handled by the TCTV system.	Average – 3 sec. and max. – 7 sec. from the sending of the inquiry to the database.	Source: central database maintained by the universal service provider. Information is updated once a week. All providers are obliged to immediately supply data concerning their subscribers.	'Push'; location is provided only for calls handled by the TCTV system.	As soon as the call arrives, visualisation time being max. 10 sec.	Geographic coordinates of the focal point of the sector and indication of specific infrastructure objects in that sector. Location is presented as a map area with 70% probability of caller's presence.	Caller location provided for VoIP calls only if subscribers are included in the database.
Denmark	'Push'	As soon as the call arrives	Source: subscriber information from the Danish telephone directory, which is compared with the 112-system's street- and address database and map system (GIS). The database is updated on a daily basis and all service providers supply data	'Push'. In addition, mobile subscriber data are provided from the telephone and address directory as for fixed calls.	As soon as the call arrives	Cell-ID with a circle on the map with a 75% probability that the call is originated within that circle.	.

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Germany	'Pull'	30 to 60 seconds if data requested from operators' databases (guaranteed time: 3 minutes) or a few seconds if using the telephone directory on CD-ROM	Source: operators' subscribers databases available via the NRA or through the inverse telephone directory on CD-ROM (its data may be outdated). The relevant databases should be updated by operators every working day.	'Pull' - by manually contacting relevant personnel at the MNOs or by having recourse to private organisations providing mobile location services on the basis of a mobile number	May vary greatly, depending on the procedure applied. Up to 60 minutes in the case of manual request to mobile operators and less than one minute if private services are used.	Cell ID or Sector ID. Galileo/GPS coordinates in the near future in the context of eCall. In addition, the mobile subscriber's address can be retrieved from operators' databases.	No caller location for VoIP users without telephone number (outgoing calls only services). No caller location for nomadic VoIP users due to lack of standards.
Estonia	Both 'push' and 'pull' can be used to receive information electronically	23 sec. on average	Source: the relevant service provider's database.	Both 'push' and 'pull' methods can be used to receive information electronically	23 sec. on average	Coordinates of the mobile handset, accuracy is approx. 1 x 2 km	Not available for certain types of VoIP.

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Ireland	'Push'		Source: database for landline local loops of the incumbent. It is updated once each 24 hour day.	'Pull'		No location information technology capability currently available at PSAPs	Some fixed line customers, such as directly connected customers are not included in the database used for fixed location. Availability for VoIP depends on the operator.
Greece	'Pull' for 112 calls only; implementation of 'push' under consideration. Caller location for calls to national emergency numbers is subject to request by prosecutor	Up to 1 min.	Source: one database for fixed subscribers, updated once a week.	'Pull' for 112 only, implementation of 'push' under consideration. Caller location Also provided for SMS to 112. Caller location for calls to national emergency numbers is subject to request by prosecutor	10 - 36 min. on average	Cell ID, installation address and address of the relevant antenna, its direction and maximum coverage or the installation address of the GSM gateway.	Caller location is available for 112 calls from VoIP recognised as PATS. VoIP providers make available caller location information for 112 calls free of charge, along with information about nomadic character of the service meaning that the actual caller location may be different from the registered one.

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Spain	'Push' available in twelve '112' centres and is being implemented in three additional centres.	As soon as the call arrives in the case of 'push' or 30 sec. in the case of 'pull.	Source: CMT's database or, in some cases, data directly provided by Telefónica. The CMT's database is completely updated twice a year, and specific updates are done every 15 days.	'Push' available in twelve '112' centres and is being implemented in three additional centres.	As soon as the call arrives in the case of 'push'	Physical location of the base station for the specific cell and the most probable sector(s). The accuracy ranges from several meters in urban areas to several kilometres in rural areas.	For nomadic voice services, the caller location information is the contract address. Caller location information is not implemented for other national emergency numbers.
France	'Pull'; the solution can provide caller location for 80% of fixed calls	Few sec. on average	Source: commercial telephone directory comprising about 80% of fixed line customers. It is updated once every few days.	'Pull' by sending a fax to the telephone operator. It is necessary to request location information for less than 10% of mobile calls.	Within 10 min. during working hours and within 30 min. outside working hours	Postal code of the municipality (of which there are 36 000 in France) of the relevant mobile base station. This usually gives an accuracy of few km.	Fixed caller location not possible for customers, for which no calling line identification is available. Regarding VoIP calls, caller location available also for mobile devices using WiFi.

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Italy	'Pull'		Subscriber databases of individual operators	Implementation will start in December 2008		The planned caller location is restricted geographic area according to the relevant ETSI standards.	Caller location will be implemented for PATS based on VoIP. Nomadic VoIP services will be covered subject to technical feasibility.
Cyprus	'Pull' via web interface, moving towards 'push'. Delivered for 99.9% of location information requests.	Average 45 sec., max. 75 sec. from the moment of call initiation		'Push', delivered for 99.9% of mobile calls	First mobile operator: average 45 sec., max. 90 sec. from the call initiation Second mobile operator: average between 67 and 114 sec. and max. between 330 and 358 sec. (depending on PSAP)	Geographical latitude and longitude plus mobile antenna direction/ lobe/ destination.	

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Latvia	'Pull'; location information was requested for 2.8% (Jan. 08) and 0.4% (Feb. 08) of all 112 and 01 calls.	Immediate	Source: a central database managed by the Electronic Communications Office. Operators under obligation to update information concerning their subscribers within 24 hours of any changes in this information.	Currently 'pull'; 'push' is being implemented	Average - 5 sec.; max. - 10 sec.	The relevant mobile network cell or sector is displayed on a map; accuracy depends on the base station coverage and ranges from a few hundred m in cities to several km in rural areas.	
Lithuania	'Pull' - location is requested for approx. 10% of calls	No longer than 1 sec.	Source: database managed by the Emergency Response Centre.	A system is being implemented to enable both 'push' and 'pull' methods	Planned: no more than 20 sec from either connection to server in the case of 'push' or sending request in the case of 'pull'.	Cell ID – geographic coordinates and radius, ranging from 50 m to 50 km depending on the density of population in the area concerned	

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Luxembourg	'Pull'	Approx. 1 sec., max.: 4 sec.	Source: a central database is being set-up.	'Push'. Emergency authorities regularly receive from mobile operators information about each cells' azimuth angle and the location of the antenna	Approx. 1 sec., max.: 4 sec	Cell ID. Accuracy depends on cell coverage and ranges from 1-2 km to less than 100 m in dense urban areas or even less than 50 m for indoor coverage sites. In rural areas, the cell reach is typically around 3-5 km.	Not provided for VoIP calls
Hungary	'Pull'; 'push' will be operational by 01/12/2008. Caller location is requested for not more than 1% of calls	Min 30-40 sec.; max. 3-4 hours since obtaining caller location information is a formal procedure by sending formal request to operators by fax.	No central database, caller location can be requested through the National Police Headquarters from the relevant operator.	'Pull'; 'push' will be operational by 01/12/2008. Caller location is requested for not more than 1% of calls	Min 30-40 sec.; max. 3-4 hours since obtaining caller location information is a formal procedure by sending formal request to operators by fax. Possible only in the context of criminal investigation	Cell ID	Caller location possible only for calls with calling line identification and for numbers listed in telephone directory. Accordingly, it is not possible for SIM-less mobile calls. Caller location is possible for public pay-phones in some counties only. Caller location is not available for VoIP calls

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Malta	'Pull'		Source: request to operators or from the on-line directory of the fixed incumbent.	'Pull' – through request to operators		Co-ordinates of the mobile handset	Exception – calls from numbers, for which no calling line identification provided.
Netherlands	'Push'	As soon as the call arrives in PSAP	Source: a central database updated once a month	'Push' is being implemented	Location will be provided within 1 sec. from the arrival of the call	Advanced Cell ID	Caller location available for VoIP services that are used as replacement of traditional fixed services.
Austria	'Pull' by online access	A few minutes	Source: a central database managed by the incumbent, Telekom Austria	'Pull'	A few minutes	Cell information or sector information	Location available for all calls except VoIP calls without registered address.
Poland	'Pull'; 'push' is being implemented	Several minutes	Source: establishment of a central database is planned	'Pull'; 'push' is being implemented	Several minutes	Cell ID with coordinates of the mobile terminal	There are some problems with VoIP caller location
Portugal	'Push'. Location provided for 100% of calls.		Source: a central database managed by the PSAPs. Operators supply updates to it every time there is a change concerning their subscribers.	'Push'. Location provided for 100% of calls.		Cell ID - coordinates plus approximate radius, which ranges from under 100 m in urban areas to more than 30 km in rural areas.	Only calls to 112 and 115 are subject to the provision of caller location, 117 calls are not covered.

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Romania	'Push'			A combination of 'push' and 'pull' is being implemented			
Slovenia	For 112 - currently both 'push' and 'pull'; moving to 'push' in the future. Ratio of provision is close to 100% in case of 'push'; only a few cases so far of applying 'pull'. For 113 - 'push', ratio of provision is 34.45%	Average 15 sec., max. 1. min. in the case of 'push' for 112 and 113 Average 15 min. in the case of 'pull' for 112.	Source: a central comprehensive database, which is updated twice a year. Online updating will be introduced at the end of 2008	For 112 - currently both 'push' and 'pull'; moving to 'push' in the future. Ratio of provision is close to 100% in case of 'push'; only a few cases so far of applying 'pull'. For 113 - 'pull', ratio of provision is 65.55%	For 112: average 15 sec., max. 1. min. in the case of 'push' and average 15 min. in the case of 'pull'. For 113: max.1 hour	Cell ID, with area divided into three probability zones	Only the registered location available for VoIP calls

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
Slovakia	'Pull', implementing 'push'	Average 2 sec.; max. 3 sec.	Online access to the database of the fixed incumbent Slovak Telecom; no central database.	'Pull', implementing 'push'	Average 2 sec.; max. 3 sec.	Cell or sector ID, displayed on the map	Provision of caller location is obligatory for PATS operators only
Finland	'Pull' by sending location request electronically	Average time is 6 sec. It varies from 3 to 30 seconds depending on operator and traffic.	Source: database of the directory service provider, which is updated daily. All service providers supply data to the database.	'Pull' by sending request electronically to the location servers of the network operators. Location is requested for approx. 0.4% of all mobile emergency calls	Average time is 6 sec. It varies from 3 to 30 seconds depending on operator and traffic.	Cell ID and, in case of some operators, a more accurate information based on measurements and computation. Accuracy varies from few hundred metres to 10 kilometres.	Where the VoIP number is linked to a mobile location and/or fixed network address, caller location can be received as normal. In the case of nomadic VoIP the location may be incorrect.
Sweden	'Push' for PSTN calls and provided for all these calls that constitute 40 % of all emergency calls.	1-2 sec.	Source: an address database provided by a private company and comprising fixed and mobile numbers with user addresses. All service providers supply data to the database.	'Pull'. Location information is requested for less than 2 % of mobile calls.	The base station is automatically located. The provision of the exact coordinates takes 0-12 sec.	Accuracy varies from a few meters in urban areas to several kilometres in sparsely populated areas.	Fixed IP telephony is treated in the same way as PSTN telephony. For nomadic VoIP it is often possible to provide location information corresponding to the subscription.

	Fixed calls			Mobile calls			Exceptions and treatment of VoIP calls
	System applied (push/pull) and usage statistics	Time needed to provide caller location	Source of fixed location information and its updating	System applied (push/pull) and usage statistics	Time needed to provide caller location	Type/ accuracy of caller location	
United Kingdom	<p>Caller location is ‘pushed’ at the time of an emergency call by stage 1 PSAPs to location servers, from which it can be ‘pulled’ by stage 2 PSAPs (Emergency Authorities – EAs). Around 1.05 million fixed and mobile locations are provided each month.</p>	<p>The location information is automatically forwarded to location servers and can be retrieved by EAs in less than 2 seconds from call answer. The average response time for location servers accessible by EAs is less than 0.1 seconds. Caller location information can also be provided to EAs verbally on their request.</p>	<p>Stage 1 PSAPs each manage a database of all installation addresses for customers of Communication Providers that use their PSAP service. These databases are normally updated at least once every 2 hours for most of the addresses.</p>	<p>Caller location is ‘pushed’ at the time of an emergency call by stage 1 PSAPs to location servers, from which it can be ‘pulled’ by stage 2 PSAPs (Emergency Authorities – EAs). Around 1.05 million fixed and mobile locations are provided each month</p>	<p>The location information is automatically forwarded to location servers and can be retrieved by EAs in less than 2 seconds from call answer. The average response time for location servers accessible by EAs is less than 0.1 seconds. Caller location information can also be provided to EAs verbally on their request.</p>	<p>Location is based on cell coverage area (some with additional timing advance information) represented as a circle/ellipse on a map with radius and uncertainty estimate of being within this shape. The average radius is 2km.</p>	<p>For VoIP calls only a registered or default location is available. For calls from private networks (PBXs), only the location of the access point to the public network is known.</p>

TABLE 5 – PROMOTION OF 112

	Measures by the Authorities/NGOs				Measures by the operators				Specific measures for travellers in the EU
	Dedicated programs/campaigns in mass media	Display on posters, leaflets, websites etc.	Information in kindergartens / schools	Display on emergency vehicles	Publication on operator's websites, invoices etc	Inclusion in SIM address books	Display in telephone directories	Display in pay telephone booths	
Belgium									
Bulgaria	+								Brochures available in tourist sites and at airports and hotels
Czech Republic	+	+					+	+	112 indicated in tourist information, in particular at the hotels
Denmark									
Germany		+	+	+			+	+	Display in tourist guides available in different languages
Estonia	+	+	+				+	+	Information on 112 available on the tourism information website
Ireland									

	Measures by the Authorities/NGOs				Measures by the operators				Specific measures for travellers in the EU
	Dedicated programs/campaigns in mass media	Display on posters, leaflets, websites etc.	Information in kindergartens / schools	Display on emergency vehicles	Publication on operator's websites, invoices etc	Inclusion in SIM address books	Display in telephone directories	Display in pay telephone booths	
Greece	+	+							Leaflets distributed in airports, ports and international railway stations and made available to tourism organisations and hotels.
Spain	+	+	+	+			+	+	Some 112 emergency centres distribute multilingual leaflets in highway tolls, and organise courses for foreign residents.
France								+	112 is indicated in publications for tourists
Italy									
Cyprus	+	+							Activities are planned with Port and Airport authorities, travel agents, insurance companies etc.
Latvia	+	+	+						Information about 112 in the airport, train and bus stations, tourism agencies and hotels.

	Measures by the Authorities/NGOs				Measures by the operators				Specific measures for travellers in the EU
	Dedicated programs/campaigns in mass media	Display on posters, leaflets, websites etc.	Information in kindergartens / schools	Display on emergency vehicles	Publication on operator's websites, invoices etc	Inclusion in SIM address books	Display in telephone directories	Display in pay telephone booths	
Lithuania		+						planned	
Luxembourg	+	+					+		Promotion by travel companies, tour operators, travel agents, travel insurance companies, and other undertakings engaged in intra-EU travel activities, display on transport involved in such activities.
Hungary	+	+		+		+	+		112 is advertised by travel agencies and travel insurance companies. Roaming mobile users in Hungary receive SMS providing information on 112.
Malta			+	+	+	+			Information provided by travel companies to foreign tourists
Netherlands	+								
Austria		+							

	Measures by the Authorities/NGOs				Measures by the operators				Specific measures for travellers in the EU
	Dedicated programs/campaigns in mass media	Display on posters, leaflets, websites etc.	Information in kindergartens / schools	Display on emergency vehicles	Publication on operator's websites, invoices etc	Inclusion in SIM address books	Display in telephone directories	Display in pay telephone booths	
Poland		+							112 website informing about the use of 112 in Poland and abroad.
Portugal									
Romania	+	+	+	+					posters and leaflets on the 112 system in Romania will be distributed to foreign embassies
Slovenia	+	+	+	+	+		+	+	Information provided by operators and in posters, brochures.
Slovakia	+	+	+	+	+		+		Advertising 112 through radio and TV broadcasting and on websites.

	Measures by the Authorities/NGOs				Measures by the operators				Specific measures for travellers in the EU
	Dedicated programs/campaigns in mass media	Display on posters, leaflets, websites etc.	Information in kindergartens / schools	Display on emergency vehicles	Publication on operator's websites, invoices etc	Inclusion in SIM address books	Display in telephone directories	Display in pay telephone booths	
Finland	+	+	+				+		Display of information posters at ports, airports, railway stations, border crossings and other entry points.
Sweden	+	+	+						Swedish inhabitants travelling abroad are informed mainly by media
United Kingdom		+			+		+	+	