



## Next Generation 112

# Results for Next Generation 112: Emergency services operational requirements survey

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## 1 Introduction

The goal of this survey is to help the Next Generation 112 Committee in analysing and understanding the operational emergency services requirements in Europe regarding Next Generation 112

The services delivered over the traditional public switched telephony network are increasingly being replaced by IP-based services. Voice over Internet Protocol (VoIP) based devices and applications have become commonplace. Citizens use them to conveniently communicate, send and receive information. Consequently, any device suitably connected to the Internet or an IP-based communications network that can reasonably be expected to make an emergency communication should be allowed to do so. Furthermore, citizens that use next generation communications should be allowed to do so without hindrance in emergency situations.

However, the existing, legacy emergency services infrastructure (circuit-switched) is not designed in a way that enables interaction with enhanced services and technology (many of which are operated globally and independently of networks). Therefore, it is unable to embed such enhanced services and technology and provide the level of service that citizens expect.

In a few years, the majority of mobile phones are likely to be smart phones with an abundant choice of applications. Text messaging and instant messaging are becoming an ever more common means of communication, increasingly replacing the traditional, two-way voice telephone call. Pictures and videos from phones, PDAs and other devices are shared instantly with friends and colleagues around the world, and social networks have become a media in themselves. Additionally, video and text-based communications are replacing traditional systems, such as textphones for the deaf and hard of hearing.

Already, cars are being fitted with telematic systems that can automatically initiate a voice call and provide valuable data when the vehicle is involved in an accident (eCall). Also, geographical location-based services are increasingly used to submit or lookup close points of interest or a friend's current position (e.g., satellite navigation products).

Modern mobile phones, from which an emergency call might be placed, have the potential to transmit life saving location information with the call. Enterprise workers, regardless of their primary means of communication, undoubtedly expect to be able to place an emergency call from a campus or building complex and have a first line response dispatched to the specific location, be that a building within a campus or a floor in a building or an office on a floor.

Enterprise workers, spend most of their day in large corporate environments behind Multi Line Telephone Systems (MLTS). Often their communications services are centralized in locations geographically distant from the user. These citizens undoubtedly expect to be able to place an emergency call from a campus or building complex or, if they are working virtually, from their remote location. Currently, due to the limitations of the existing legacy emergency communications network infrastructure, assistance is often delayed in responding to their specific, due to the fact that although most enterprise networks have a great deal of valuable data, such as detailed location that could be shared with public safety systems, the network to share that data does not yet exist.



## 2 What is Next Generation 112 (NG112)?

NG112 is defined by two major aspects:

- Interoperability between emergency services: NG112 enables several Public Safety Answering Points (PSAPs) to be part of a common emergency services IP network, providing them with redundancy and interoperability features. This network should support data and communications needs for coordinated incident management between PSAPs, and provide a reliable and secure environment for emergency communications.
- Communication between citizens and emergency services: NG112 is designed to enable citizens to reach an authority (e.g., PSAP) by calls using VoIP, text messaging, instant messaging, real-time text, pictures and video. It could also provide emergency services with more data, such as location and health data. NG112 enables the delivery of calls, messages and data to the appropriate PSAP and other appropriate emergency entities, and adds significant value to the call handling process.

Fundamentally, NG112 has to provide an IP network communication infrastructure with standard interfaces between all forms of call and messaging services.

## 3 Data about the survey

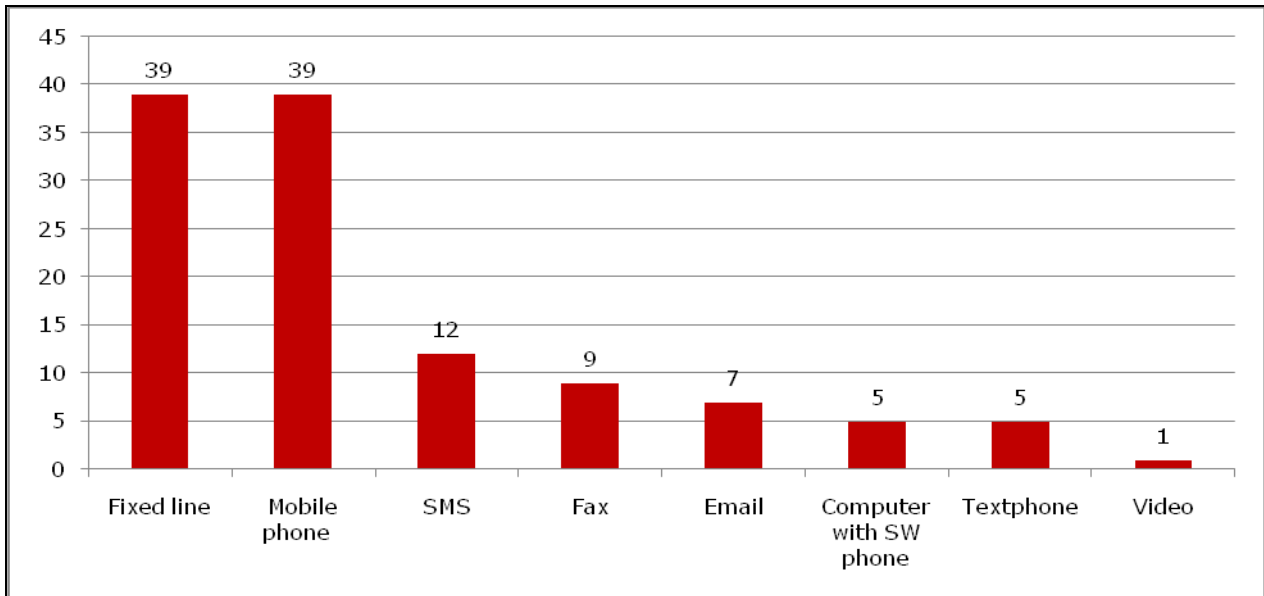
The survey was launched the 27<sup>th</sup> of June and closed the 15<sup>th</sup> of August 2011. It was addressed to the EENA Emergency Services Staff Network group.

40 completed surveys were received.

## 4 Results

### Question 1:

Which communication devices and/or software can citizens currently use to reach the 112 PSAPs in your country? (tick one or more)

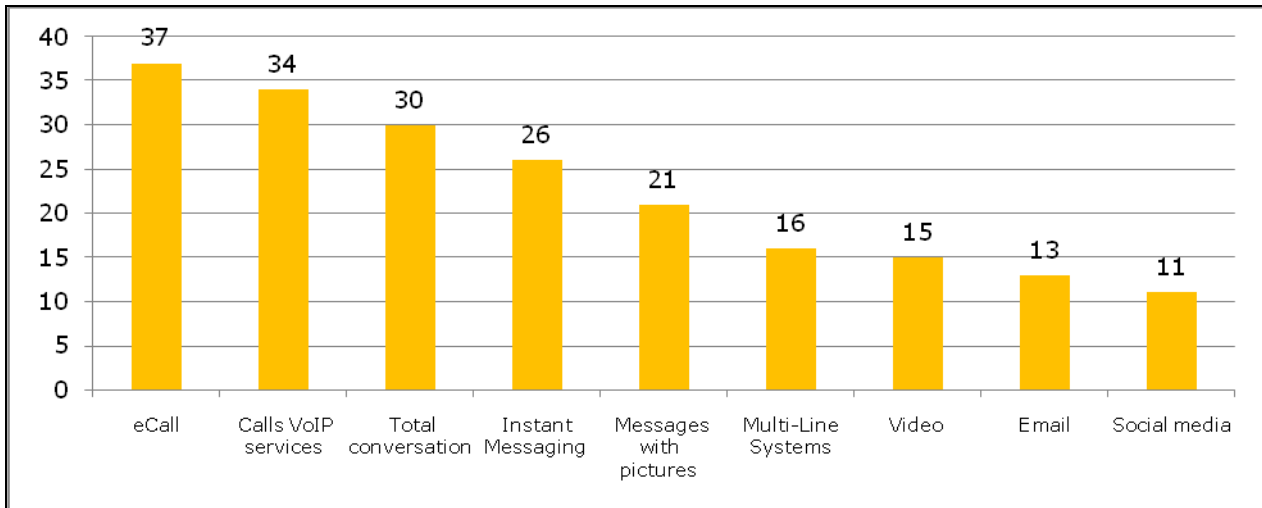


### Other (free text option):

- SMS and Text for disabled only
- WAP112
- My SOS device

## Question 2

What type of Next Generation emergency calls and data you think should be accepted in the coming years? (tick one or more)

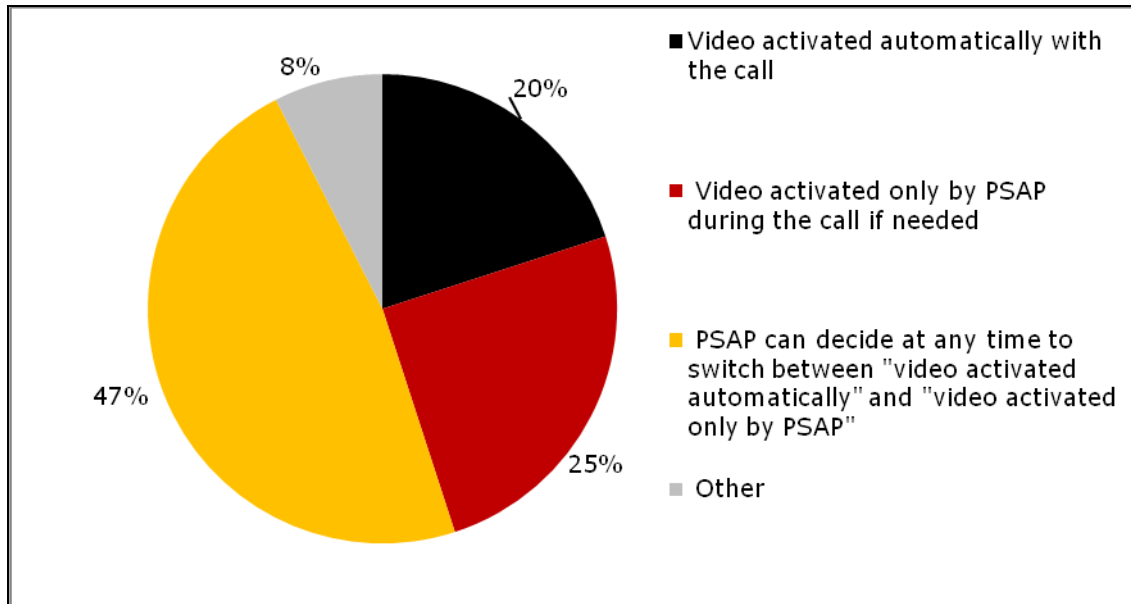


### Other (free text option):

- SMS
- Networks among European dispatch Centers
- There is a problem with using sms, e-mail, social media and other text based medias in that regard that it is slower to communicate with and as a SOS-operator you lose that important context regarding sick patients - you can't hear how they sound, how they breath and so on.
- SMS (Short Message Service) will be made available in the future for a fixed group of identified deaf and hearing impaired people.
- Smart phones apps

**Question 3:**

*In the case of handling a video call, is it more appropriate to have the video stream activated automatically once the session begins or manually activated by the call handler?*

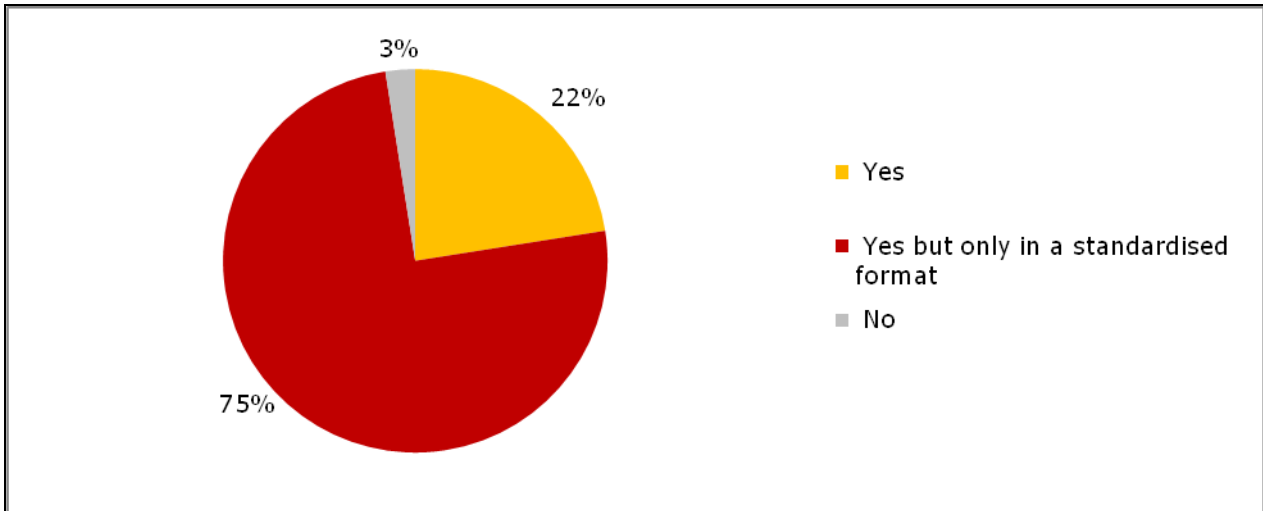


**Other (free text option):**

- I think that the PSAP should be able to decide and switch, this because of the risk that the SOS-operator gets more exposed to possible horrible pictures and events. An experience that we have had in the REACH 112-project is that it is essential that the PSAP-operator should have a choice.
- Video calls shall be setup by a relay service. National policy is to support these by relay service and not directly by a 112 PSAP.
- Options "video activated automatically with the call" and "video activated only by PSAP during the call if needed are possible". The details of how the technology will be used are not yet fixed in Belgium.

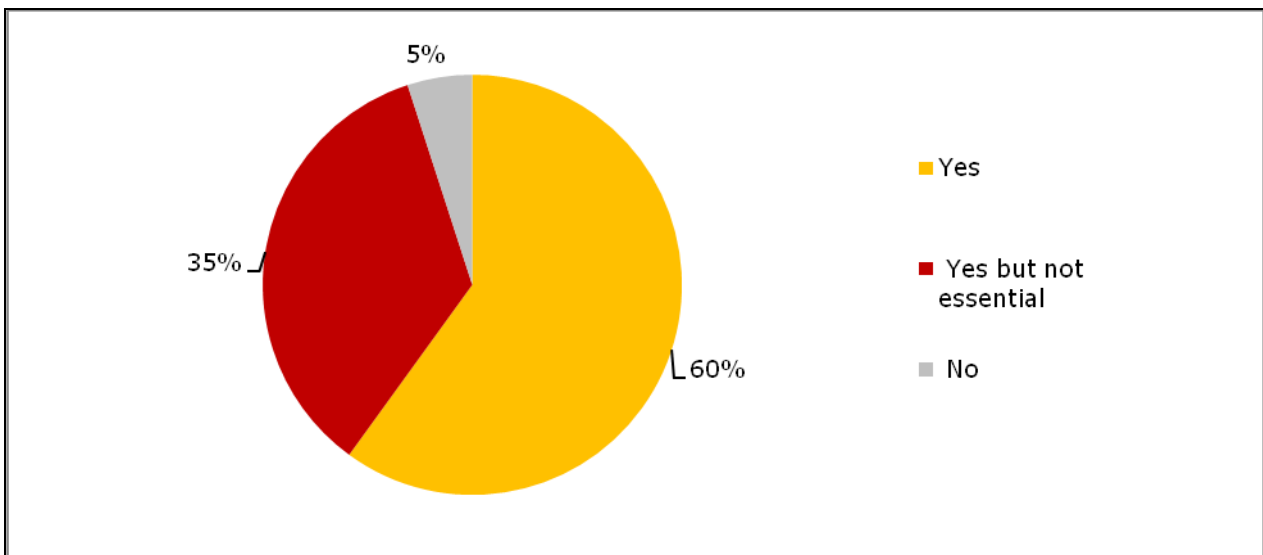
**Question 4:**

*Do you believe it is appropriate to receive data (e.g, pictures, location information, contact data) from 112 applications from smartphones?*



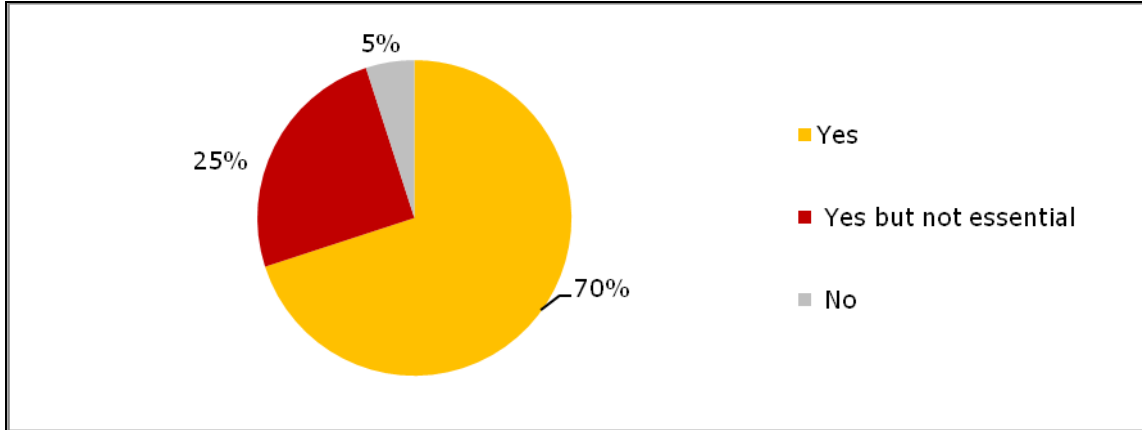
**Question 5:**

*Do you believe it is preferable to have a single software interface at the PSAP to handle all type of communications (e.g., video calls, real-time text, SMS, IMS, etc .)?*



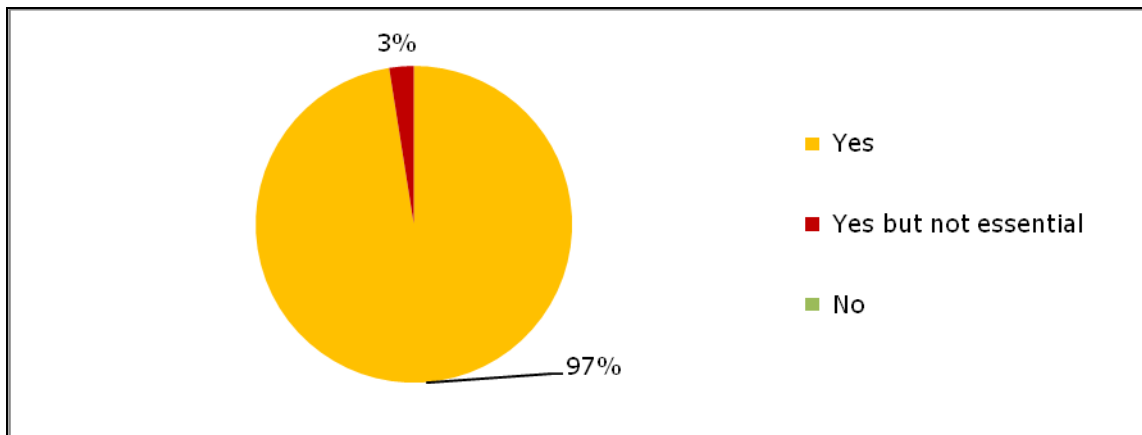
**Question 6:**

*Do you believe it is appropriate to have a call-back facility using the media in the original call?*



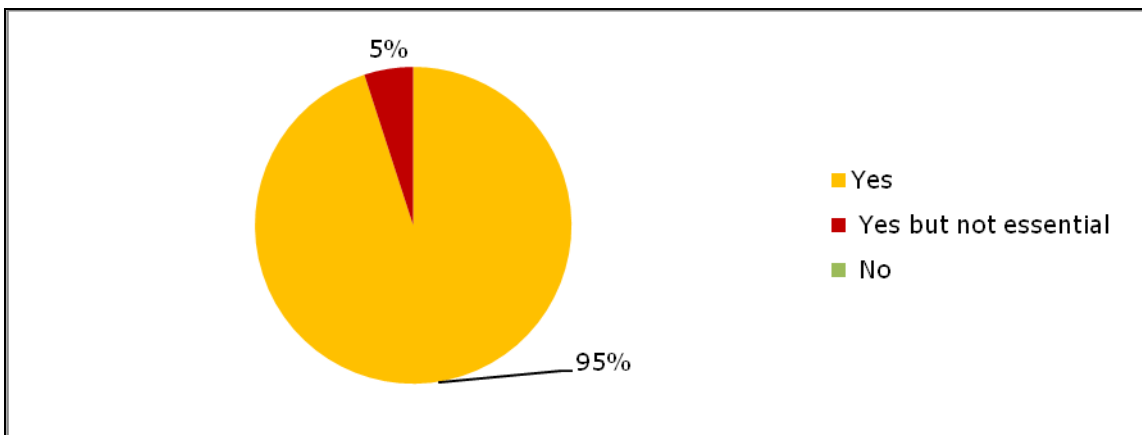
**Question 7:**

*Do you believe it is necessary to record calls made using all type of media?*



**Question 8:**

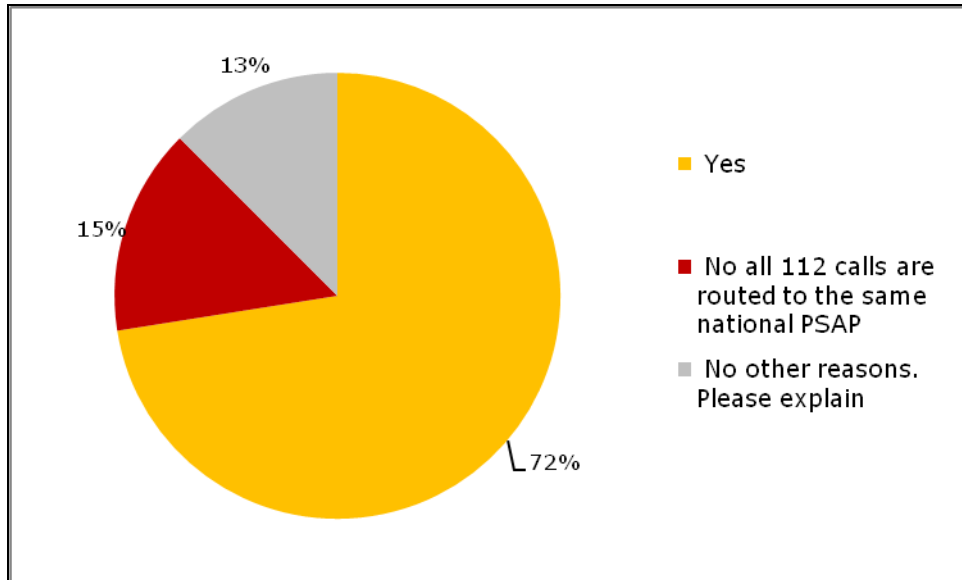
*Should location for the call always be available?*





**Question 9:**

*Do you require calls to be routed directly to the relevant local PSAPs?*

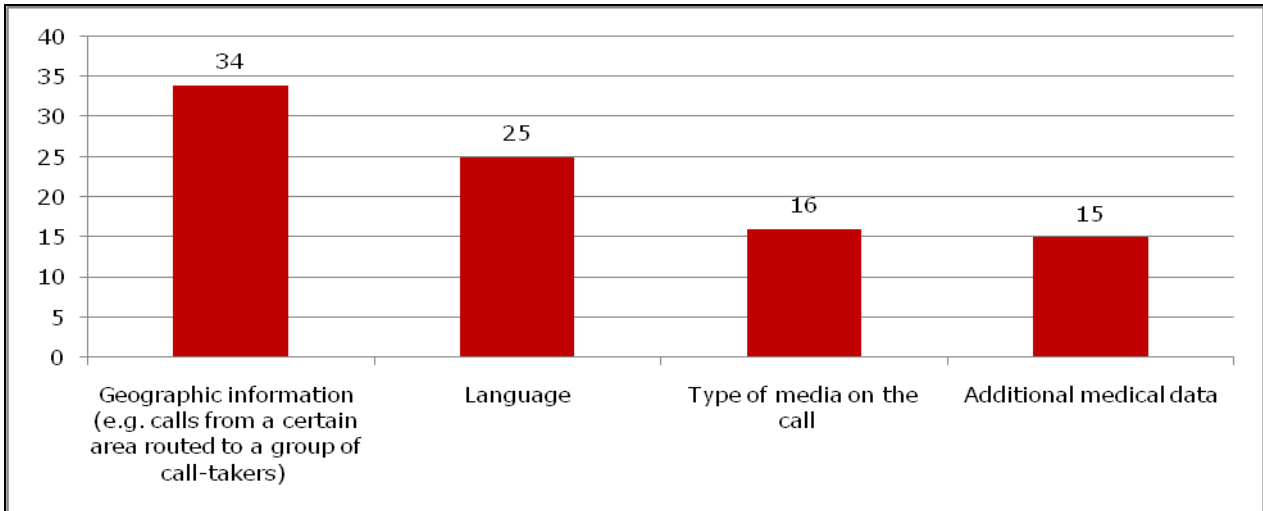


**No, other reason. Please explain:  
(free text option)**

- I think the calls should be directed toward single Dispatch Center manned by all the professionals with no transfers of any kind.
- All calls are now routed on the relevant local PSAP`s.
- Calls must contain location data on which the PSAP system has to route the call to the appropriate PSAP Call Centre
- It is a political topic. Out of operational view all calls should be offered to a national platform and automatically divided over geographical relevant PSAP's
- All calls are currently routed directly to a call center. In Belgium, there are two types of call centers per province. The call centers 100/112 receive calls made by dialing the traditional emergency number 100 (for fire and medical emergencies) as well as dialing the European emergency number 112, while the call centers 101 (Centre for Information and Communication of the integrated police) receive calls made by dialing the traditional emergency number 101 (for police emergencies). Calls made from within the province are automatically routed to the provincial call center.

**Question 10:**

*What type of information do you think should be used to route the calls to a different group of call-takers / queues in your PSAP?*

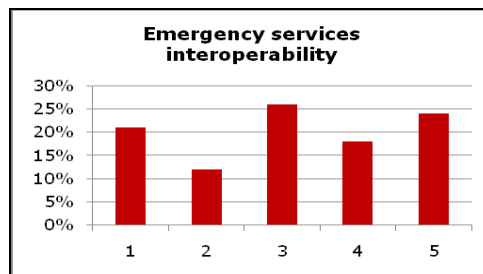
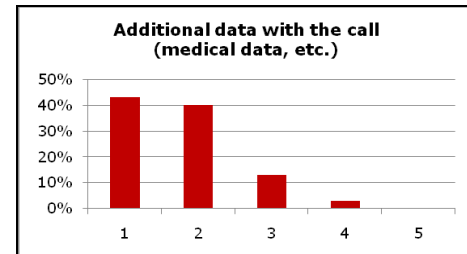
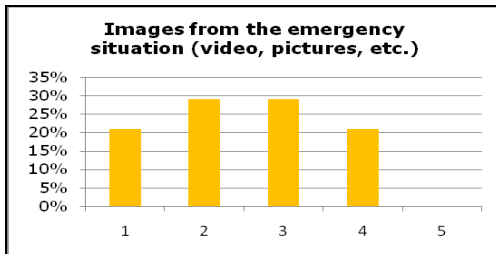
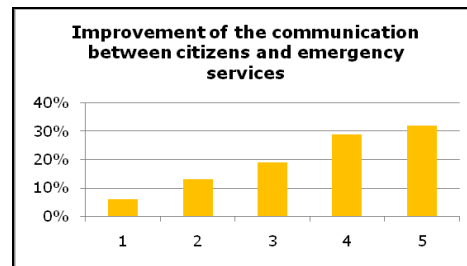
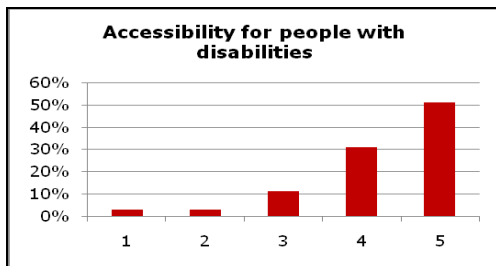
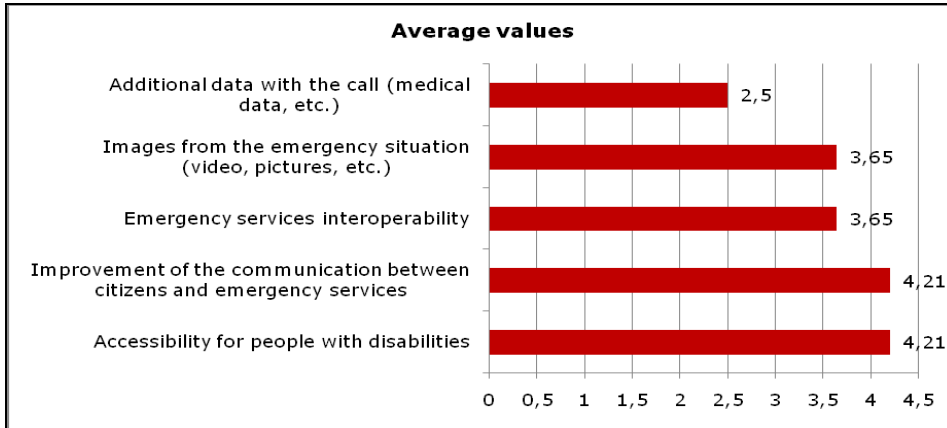


**Other (free text option):**

- all register data concerning to urbanization, population density of buildings, access ways, discharge
- What, when and how happened.
- Calls in different languages than those prevalently spoken by the calltakers, can lead to a conference call with operators from a different PSAP (for example with operators in a callcenter from another province). The operator will contact the other PSAP after realizing the call is made in another language. The operator of the 100/112-callcenter can also decide to transfer the call to the call center of the police after gathering some basic information.

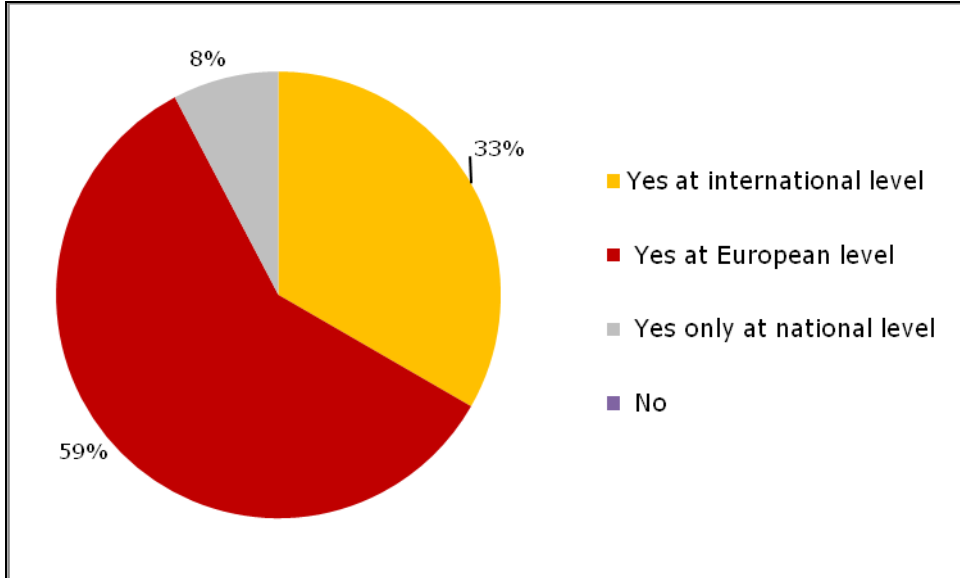
**Question 11:**

Which of the following do you consider to be important, with regard to NG112 calls? (1 = less important; 5 = very important)



**Question 12**

*Do you think that regulation on NG112 is needed?*



**Question 13**

*Do you think that standards on NG112 are needed?*

