

# iSAR+

## iSAR+ workshops

WP7 | Task 7.3 | D7.731





# ISAR+ WORKSHOPS

iSAR+

Online and Mobile Communications  
for Crisis Response and Search and Rescue

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### Abstract:

This deliverable is the final outcome of the iSAR+ task 7.3 – “iSAR+ workshops coordination”. It reports on the different workshops organized throughout the project: Portuguese, French, Finnish, US and final workshop. The aim and importance of the workshops for the project is explained as well as their positioning in the planning. Each workshop is then presented in details (participants, program, proceedings, and closing notes) with a focus on the feedbacks obtained from the end-users community. The final conclusion reflects over the results of the complete series of workshops and also discusses possible future work on the use of social media channels by PPDRs for crisis management.

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<sup>1</sup> Nature of deliverable: **R** = Report; **P** = Prototype; **D** = Demonstrator; **O** = Other

<sup>2</sup> Dissemination level: **PU** = Public; **PP** = Restricted to other programme participants (including the Commission Services); **RE** = Restricted to a group specified by the consortium (including the Commission Services); **CO** = Confidential, only for members of the consortium (including the Commission Services).

<sup>3</sup> Sensitive content: **Y** = Deliverable contains sensitive material; **N** = Deliverable does not contain sensitive material.



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## Executive Summary

This document describes the iSAR+ workshops that were organized to disseminate and present the Project's results to the iSAR+ Consortium partners and the end-users community.

The preparation, content and results of all workshops are presented:

- Initial workshop held in Portugal and organized by TEKEVER to present the iSAR+ concept and overall approach, the initial findings from the integrated analysis and the first concept prototype,
- 2<sup>nd</sup> Workshop held in France and organized by PPSL to present the iSAR+ basic prototype and the results from the French User Showcase,
- 3<sup>rd</sup> Workshop held in Finland and organized by ESC to present the iSAR+ enhanced prototype and the results from the Finnish User Showcase,
- US workshop held in Boston and organized by TCD to present the iSAR+ Project and preliminary Guidelines to American entities involved in emergency response,
- Final Workshop held in Portugal and organized by TEKEVER to present the iSAR+ Project's results, the iSAR+ Guidelines and associated technological platform, to EU and PPDRs involved in emergency response and homeland security.

The documents also details the feedbacks obtained from the end-users community and the citizens as well as the recommendations they have concerning the implementation of an iSAR+ platform.



## Table of Contents

Document History .....	3
Document Authors.....	3
Executive Summary .....	4
List of Acronyms.....	6
1 Introduction .....	7
1.1 An overview of the iSAR+ project .....	7
1.2 The iSAR+ workshops.....	7
1.3 The iSAR+ workshops report.....	8
1.3.1 Objective .....	8
1.3.2 Organisation.....	<b>Error! Bookmark not defined.</b>
2 The Portuguese showcase workshop.....	8
2.1 Participants .....	9
2.2 Programme .....	10
2.3 Proceedings .....	10
2.4 Closing notes .....	11
3 The French showcase workshop .....	11
3.1 Participants .....	12
3.2 Programme .....	13
3.3 Proceedings .....	13
3.3.1 PPDRs' general feedbacks and recommendations.....	14
3.3.2 PPDRs detailed feedbacks on the iSAR+ platform and tools.....	14
3.3.3 Citizens' feedbacks .....	15
3.4 Closing notes .....	19
4 The Finnish showcase workshop.....	19
4.1 Participants .....	19
4.2 Programme .....	21
4.3 Proceedings .....	21
4.3.1 PPDRs' feedback .....	22
4.3.2 PPDRs' general feedback discussion .....	25
4.3.3 Citizens' feedbacks .....	25
4.3.4 Citizens' general feedback discussion.....	29
4.4 Closing notes .....	30
5 The iSAR+ US workshop.....	30
5.1 Participants .....	31
5.2 Programme .....	31
5.3 Proceedings .....	32
5.3.1 Presentation of organizational analysis .....	32
5.3.2 Presentation of human analysis .....	33
5.3.3 Presentation of technological analysis.....	34
5.4 Closing notes .....	34
6 The iSAR+ final presentation workshop.....	34
6.1 Participants .....	35
6.2 Program .....	38
6.3 Proceedings .....	38
6.4 Closing notes .....	40
7 Conclusions and future work .....	41
8 Acknowledgements .....	42
Annex 1 – PT Showcase Workshop results.....	43
Annex 2 – FR Showcase Workshop results.....	45
Annex 3 – FI Showcase Workshop results .....	47



## List of Acronyms

Acronym	Meaning
BSPP	Brigade des Sapeurs Pompiers de Paris (Paris fire brigades)
CPX	Command Post eXercise
EMS	Boston Emergency Medical Services
FD	Boston Fire Department
FI	Finnish
FR	French
ICT	Information and Communication Technology
iSAR	Online and Mobile Communications for Crisis Response and Search and Rescue
PD	Boston Police Department
LIVEX	Live eXercise
PPDRs	Public Protection and Disaster Relief (organizations/operators)
PT	Portuguese
SGZDS	Secrétariat Général de la Zone de Défense et de Sécurité (General Secretariat of the Defence and Security Zone). Located in Paris, France, depending on the Paris Police Prefecture

Table 1 – List of acronyms.



# 1 Introduction

## 1.1 An overview of the iSAR+ project

iSAR+ project aims at meeting emerging trend of the growing citizens' participation through online (social) media and mobile communications (computer-mediated interaction), providing, seeking and brokering information, connecting those within and outside the geographical space of the crisis, with implications for both informal and formal response, that First Responders (FRs) and Public Protection and Disaster Relief (PPDR) organizations could adapt to the new crises' trend of including a global, digitally enabled social arena. The iSAR+ Project will research and develop the iSAR+ Prototype, comprising the:

- iSAR+ Guidelines, to provide instructions and recommendations for citizens and PPDRs for an effective and efficient use of social media and mobile technology in crisis situations;
- iSAR+ Platform, integrating ICT tools and functionalities (e.g. web portal, PPDR support tools, social media monitoring and mobile applications) that offer additional communication channels between PPDRs and citizens and enhanced high-quality situational awareness for PPDRs (and citizens).

## 1.2 The iSAR+ workshops

The workshops are a very important part of the project as they are key moments to get feedback from end users and guide the next steps of the project. They contribute to the dissemination/communication activities.

The aim of the workshops is to present and discuss intermediate/final results as well as requirements and expectations with end-users community (PPDR's, citizens). Feedback from end-users at different steps of the project is crucial for the iSAR+ Consortium as it is used as a guiding light for delivering the best solution possible that meets the end-users expectations/needs.

Five workshops were organized. The first three workshops were conducted in a block together with the user showcases (Portugal, France and Finland). At the workshops the results from the prototype iterations (concept, basic, enhanced) and the showcase's results were presented and feedback from the showcases received. The fourth and fifth (and final) workshops were conducted, respectively, in the USA and EU to present the iSAR+ results and achievements targeting a wide and international audience.

Planning and place of the workshops:

- The first workshop was held simultaneously with the first user showcase, (concept prototype). This workshop was conducted in Portugal.
- The second workshop was held simultaneously with the second user showcase (basic prototype). This workshop was conducted in France.
- The third workshop was held simultaneously with the third user showcase, (enhanced prototype). This workshop was conducted in Finland.
- The fourth workshop was held in the final Project's iteration, presenting the iSAR+ platform to an audience that included invited North, Central and South American authorities and potential end-users. This workshop was conducted in the United States of America.
- The fifth workshop signaled the end of the iSAR+ Project, presenting the iSAR+ guidelines and platform to European authorities and potential end-users.



**Targeted audience for the 5 workshops includes:**

- Public Protection and Disaster Relief services and First Responders
- Citizens
- Local authorities
- Crisis management centers
- Municipal Police
- Media (national, regional, local)
- Third sector (Red Cross etc.) organizations
- Policy makers

The audience was adapted according to the local/national context of the workshop's location.

### **1.3 The iSAR+ workshops report**

#### **1.3.1 Objective**

The objective of this report is to present the different workshops in details in terms of participants, program, aims and proceedings. The feedback obtained from the end-users community at each workshop is analyzed and the way it guided the next steps of the project explained.

#### **1.3.2 Organization**

The iSAR+ workshop report focuses in providing the detailed information about each workshop undertaken in the scope of the iSAR+ project. In this sense, sections 2 to 6 present detailed information about each workshop, while section 7 reflects the results of the complete series of workshops and also discusses possible future work on the problem of using social media channels to support the decision during crisis scenarios. Annex 1 presents a complete list of all materials produced in the scope of the iSAR+ series of workshops. Each entry in this list includes a hyperlink to the internet URL that provides access to the workshop material. Annex 2 details the workshops' results.

## **2 The Portuguese showcase workshop**

In its first stage, iSAR+ defined an overall concept and validated it through a prototype – the concept prototype with the purpose to respond to a subset of identified user requirements and needs and to require validation from the iSAR+ end-users community. This prototype is defined in the deliverable “D2.231 - Concept Prototype”.

The involvement of the end-users community was performed in terms of a CPX - Command Post Exercise (CPX), conducted together with Portuguese local PPDRs (Protecção Civil de Cascais and Polícia de Segurança Pública do Distrito de Lisboa), taking place on October 9<sup>th</sup>, 2013.

At the end of this exercise, it was possible for iSAR+ partners, the Observers, to interact with the end-users, supported by non-professional translators, in order to collect the most possible inputs and recommendations to enable the validation of iSAR+ concept, and its potential improvements.

These inputs, the showcase results, were then analyzed and discussed in a workshop performed the day after, during a meeting involving iSAR+ observers and with the participation of some end-users.

The main objectives for the workshop were the following:

- Discuss the PT showcase results and the project concept as a whole.
- Analyze the results retrieved from the participants during the showcase which were ultimately translated into important inputs for the next phases of the project.





The result of the workshop is presented in different deliverables depending on the addressed issue:

- D1.111 – Concept Prototype Report, reporting the main considerations of the PT Showcase as the closing element of the first project iteration;
- D2.261 – PT Showcase Report, which presents all the important topics concerning the plan, the execution and the results of the PT Showcase, mainly aiming at providing recommendations for future showcases;
- D7.731 – iSAR+ Workshops (this document), summarizing the workshop organization, the analysis and discussion of the PT showcase results, and the identified considerations for the iSAR+ concept, plans, goals and schedule. These considerations are presented in a separate annex of this document (annex 2).

## 2.1 Participants

All the PT Showcase Observers, and also representatives from the end-users community were invited to participate in the workshop.

The following table presents the participants list:

<b>TEKEVER</b>	João Belfo Luís Simão
<b>CSSC</b>	Efrain Castaneda
<b>ESC</b>	Laura Hokkanen
<b>EMAUG</b>	Pinar Kuecuekbalaban
<b>ITTI Sp z o.o.</b>	Adam Flizikowski Marcin Przybyszewski
<b>HUS (KOKOM)</b>	Egil Bovim Åge Jensen
<b>NYP</b>	Simon Jones
<b>TCD</b>	Michael Cooke Derek Ross
<b>THALES</b>	Claire Fraboulet Laudy Thomas Delavallade
<b>PPSL</b>	Emmanuelle Villot
<b>DEVERYWARE</b>	Stéphane Schmoll Bertrand Casse
<b>PPDR</b>	Elements from the end-users community



## 2.2 Program

Hour	Item
09:30	<b>Session 1</b> – Review the PT showcase main events
10:00	<b>Session 2</b> – Present the results collected
11:00	<b>Session 3</b> – Discussion on those results and the overall project concept (user requirements)
13:00	No host Lunch
14:30	<b>Session 4</b> – Analyze the impact on iSAR project next phases (goals and schedule, and guidelines for future showcases).
17:45	<b>Session 5</b> – Conclusions
18:00	End of the meeting

## 2.3 Proceedings

The workshop started with a brief presentation from Mr. João Belfo, highlighting the main events that occurred during the PT Showcase.

Mr. João Belfo presented the rules to group and analyzed the inputs collected by the observers during the showcase. The inputs were organized in six groups:

- New requirements – which concerns any feedback potentially associated with requirements that the iSAR+ project had not identified;
- Requirements consolidation – which concerns the feedback contributing to requirements already identified in the iSAR+ requirements baseline, that could now be consolidated by confirmation or better clarification;
- Goals and Schedule – which concern feedback that might affect the iSAR+ goals and schedule;
- Adoption roadmap – which concerns the viability and plans for the end users community to actually use iSAR+ solutions in real world situations;
- Business and exploitation – which concerns the feedback on the potential commercial exploitation of the iSAR+ solutions;
- Recommendations for future showcases (detailed in section 3.3) – which concern recommendations and suggestions for improvement of the future iSAR showcases which will occur in France and in Finland.

After this first session, and before the presentation of all the collected inputs, the participants had another opportunity to clarify with the end-users (also attending the first part of the workshop) pending questions regarding the showcase, supported by non-professional translators.

The workshop proceeded with an open presentation of individual's conclusions and ideas, raising interesting discussion between all the participants.

The main output from this discussion was a set of grouped conclusions that are presented in the annex 2 of this document.



## 2.4 Closing notes

The aim of the workshops is to present and discuss intermediate/final results as well as requirements and expectations with end-users community (PPDR's, citizens).

This first showcase was performed in a very preliminary stage of iSAR+ maturity and used a very simple platform, produced especially to satisfy the objective of the showcase: validate the iSAR+ concept and involve the end-users community on its validation and improvement.

The collected results from the showcase as well as the discussion on those results performed in the workshop, guarantee the success of this initiatives.

The achieved conclusions, presented in annex 2 of this document, confirm that iSAR+ is in the right way to achieve its goals.

## 3 The French showcase workshop

In the second stage of iSAR+, a basic prototype was developed with the purpose to respond to the user requirements and needs consolidated during the PT showcase and to require validation from the iSAR+ end-users community. Info on this prototype can be found in the deliverable "D1.112 - Basic Prototype Report".

The involvement of the end-users community was performed in terms of an Exercise, conducted together with French local PPDRs (Paris Zone de Défense et de Sécurité, Paris fire brigades, French railways and Paris underground) and citizens (recruited among the red cross voluntary workers and students from the Sorbonne University), taking place on September 24<sup>th</sup>, 2014.

At the end of this exercise, questionnaires were filled in by the participants (PPDRs and citizens), in order to collect as many inputs and recommendations as possible to enable the validation of iSAR+ concept, and its potential improvements.

These inputs, the showcase results, were then analyzed and discussed in a workshop performed 2 days after, during a meeting involving iSAR+ participants and observers, with the participation of some end-users.

The main objectives for the workshop were the following:

- Discuss the FR showcase results and the project concept as a whole.
- Analyze the results retrieved from the participants after the showcase which were ultimately translated into important inputs for the next phases of the project.

The result of the workshop is presented in different deliverables depending on the addressed issue:

- D1.112 – Basic Prototype Report, reporting the main considerations of the FR Showcase as the closing element of the second project iteration.
- D2.241 - Integrated iSAR+ Recommendations (Basic and Enhanced Prototype)
- D2.251 – iSAR+ platform validation (Basic and Enhanced Prototype)
- D2.263 – FR Showcase Report, which presents all the important topics concerning the plan, the execution and the results of the FR Showcase, mainly aiming at providing recommendations for Finnish showcase and for a future iSAR+ platform.
- D7.731 – iSAR+ Workshops (this document), summarizing the workshop organization, the analysis and discussion of the FR showcase results, and the identified considerations for the iSAR+ concept, plans, goals and schedule. These considerations are presented in a separate annex of this document (annex 3).



### 3.1 Participants

All the FR Showcase Participants and Observers, and also representatives from the end-users community were invited to participate in the workshop.

The following table presents the participants list:

<b>TEKEVER</b>	João Belfo Luís Simão
<b>PSP</b>	Rui Gouveia Pedro Grilo
<b>ESC</b>	Laura Hokkanen
<b>EMAUG</b>	Pinar Küçükbalaban
<b>ITTI Sp z o.o.</b>	Adam Flizikowski Marcin Przybyszewski
<b>HUS (KOKOM)</b>	Espen M. Haugvaldstad
<b>PCCNY</b>	Tom Stirling
<b>TCD</b>	Michael Cooke Derek Ross Sarah Curristan
<b>THALES</b>	Claire Fraboulet Laudy Thomas Delavallade
<b>PPSL</b>	Emmanuelle Villot Stéphane Braudel
<b>DEVERYWARE</b>	Alain Soulier Bertrand Casse Laurent Cellier
<b>North Savo Rescue Department</b>	Sami Nurminen
<b>Zanasi and Partners</b>	Alessandro Zanasi Fabio Ruini
<b>UEF</b>	Niina Päivinen Marko Jäntti
<b>PPDR</b>	Colonel Frédéric Sépot Stéphan Portier Aïda Ossou (all from the Paris Zone de Défense et de Sécurité)



### 3.2 Program

Hour	Item
09:30	<b>Session 1</b> – Review the FR showcase main events
10:00	<b>Session 2</b> – Present the results collected
11:00	<b>Session 3</b> – Discussion on those results and the overall project concept with the PPDRs present
12:00	Host Lunch
13:00	End of the workshop

### 3.3 Proceedings

The workshop started with a brief presentation from Mr. João Belfo, focusing on the main goals of the iSAR+ project.

A general feedback was then given by the PPDRs attending the workshop.

After that, Emmanuelle Villot (PPSL) presented the analysis of citizens' feedback and Claire Laudy and Thomas Delavallade (THALES) gave the feedback obtained from the PPDRs who used the different tools during the showcase.

The workshop continued with a session of questions and answers between the partners and the PPDRs, supported by non-professional translators. This session was also the opportunity to present individuals' conclusions and ideas, raising interesting discussion between all the participants.

The main output from these feedbacks and discussion was a set of grouped conclusions that are presented in the annex 2 of this document. These conclusions are organized in the same six groups as the conclusions of the PT showcase:

- New requirements – which concerns any feedback potentially associated with requirements that the iSAR+ project had not identified;
- Requirements consolidation – which concerns the feedback contributing to requirements already identified in the iSAR+ requirements baseline, that could now be consolidated by confirmation or better clarification;
- Goals and Schedule – which concern feedback that might affect the iSAR+ goals and schedule;
- Adoption roadmap – which concerns the viability and plans for the end users community to actually use iSAR+ solutions in real world situations;
- Business and exploitation – which concerns the feedback on the potential commercial exploitation of the iSAR+ solutions;
- Recommendations for Finnish showcase, which concern recommendations and suggestions.

All the presentations/discussions are detailed in the next 2 paragraphs.



### 3.3.1 PPDRs' general feedbacks and recommendations

iSAR+ tools are a very interesting help for PPDRs but operational procedures cannot be changed. It is therefore of utmost importance to think about the ways to introduce these tools in the existing processes.

From the PPDRs' point of view, iSAR+ tools were considered particularly useful for crowd management and population information. However an intervention would never be decided on the sole basis of such tools but only after a direct contact with a citizen or an authority.

PPDRs confirmed that a continuous watch on social media is very important to predict events (or detect the beginning of events).

Most French PPDRs would be ready to use social media but they encounter reluctance from their hierarchy and complexity in the validation loop (especially when it comes to communication issues).

Paris zone de Défense et de Sécurité pointed out 3 obstacles to the use of social media within its organization:

- French citizens do not trust Police Prefecture
- Validation chain to push messages on social media is still too long
- Rumors spread very quickly on social media (biggest challenge)

Another related issue is the necessity to be sure of the geolocation information

### 3.3.2 PPDRs detailed feedbacks on the iSAR+ platform and tools

Concerning the technical aspects, all the tools were found easy to use.

#### **IPS:**

The tool is useful. There is confidence in the information presented to the operator. The alerts are relevant. The automatic sending to authorities is interesting. Refreshing should be automatic as soon as a new info is available.

Color codes and alerts were considered very interesting, although the choice of color (corresponding to a level of gravity of the information) was not that easy to make (rules specifying how to choose the level of gravity of an event would have to be clearly stated in the iSAR+ guidelines or at least recommendations should be given and it should be made clear that PPDRs have to define themselves these rules in their doctrine).

#### **My Public Alerts (MPA):**

Very easy to use, quick and efficient. Insertion in the existing operational processes would have to be studied.

#### **OsintLab (SMM):**

Useful tool that would be even more interesting with more analysis functionalities. It would be interesting to have different colors for the tweets (already dealt with, not processed yet). PPDRs are not willing to share the watch of social media with external agencies but might examine sharing with specialized voluntary associations.

**TAT2:**

PPDRs trust neither automatic translation nor unreferenced citizens but they would have confidence in referenced citizens (who shouldn't be paid for that) or professional organizations.

They do not trust either automatic geolocation obtained from analysis of tweets' content.

**3.3.3 Citizens' feedbacks**

Around 50 citizens participated in the showcase. 20 were students from the Sorbonne University and 30 were volunteers from the French Red Cross.

43 feedback questionnaires were filled in just after the showcase.

First a few figures on the persons who answered the questionnaires:

- 53% men, 47% women
- 47% students
- 53% would like to have follow-ups on the project
- 63% had never used Twitter, only 7% use it everyday
- Nobody knew Permiloc application (not surprising as it is not yet on the market)

It is interesting to know first for what purpose the participants generally use their mobile. The answers show all of them use it to send/receive SMS. 90% use it to check their emails, more than 70% use it to surf internet or define a journey between a point A and a point B. More than 50% like to listen to music with their mobile. And less than 50% use it to play, organize their timetable or to discuss through messaging applications.

Very surprisingly, 4% don't event use it as a phone!

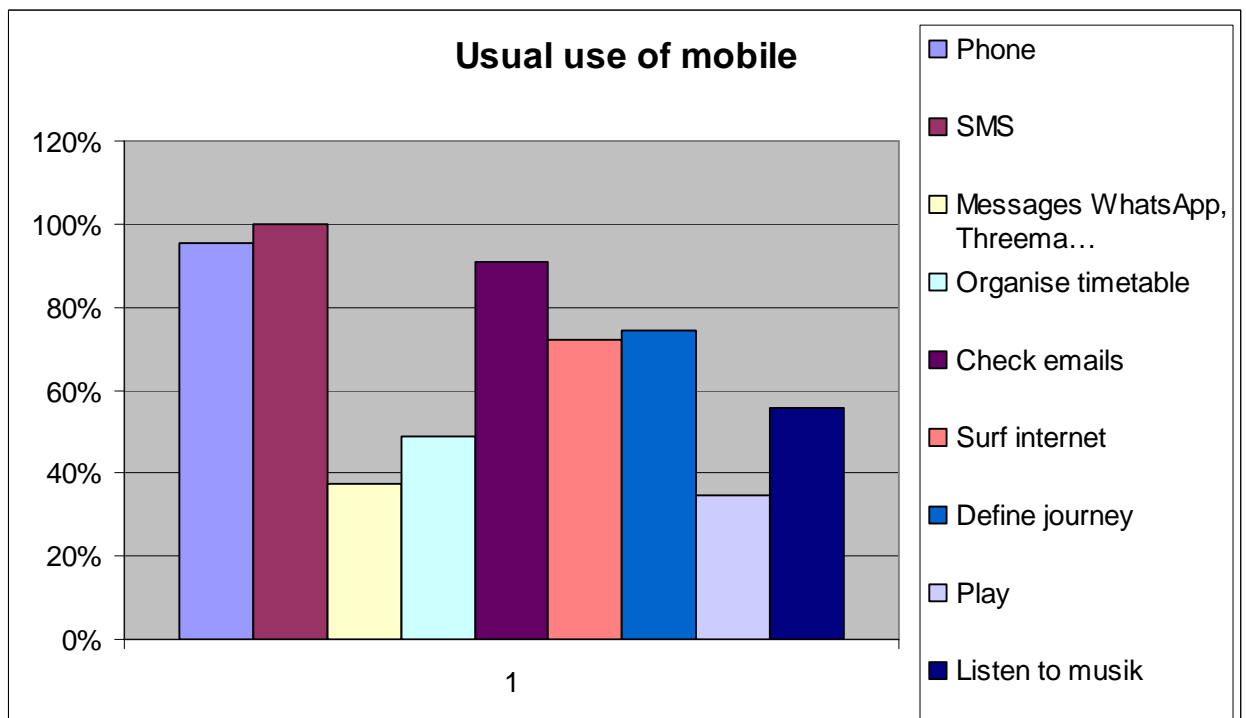


Figure 1: Usual use of mobile (43 answers)

Concerning the perception of the showcase, they found it interesting and fun. It was neither too long nor stressful or boring but it could have been more realistic.

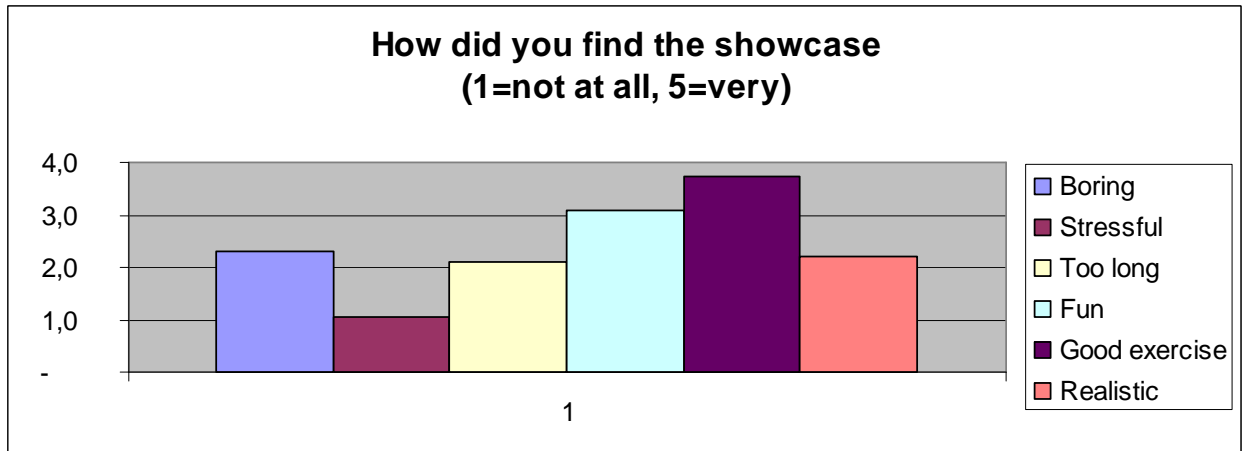


Figure 2: Interest for the showcase (43 answers)

Before the beginning of the showcase, citizens were asked to download Permiloc application and Twitter. All the participants were given specific Twitter accounts for the showcase and a private Twitter network had been created (only the registered accounts could see the information posted by the others among the network). During the showcase, 93% used at least one of the 2 applications (7% had no smartphone and teamed up with another participant) and 60% used both simultaneously. Switching between the 2 apps was considered rather realistic and easy and having both information was found interesting.

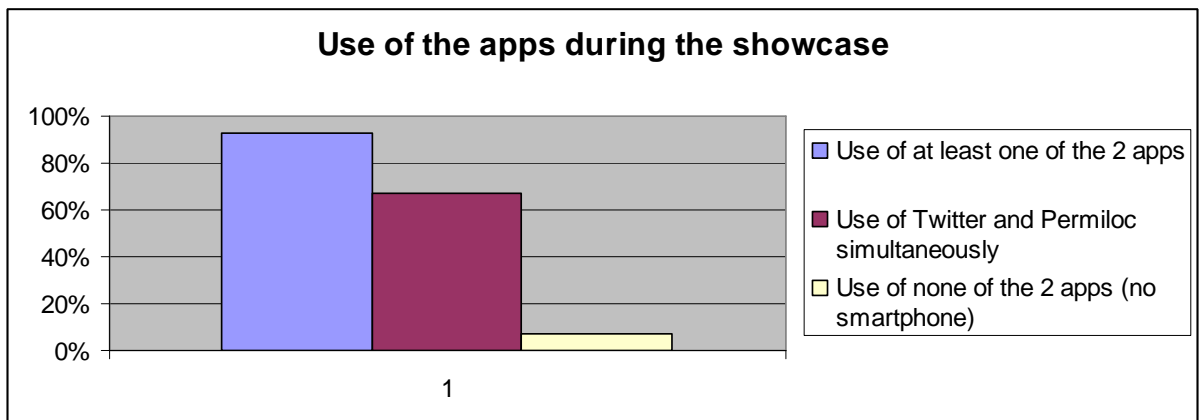


Figure 3: Use of apps during the showcase (43 answers)

Around 70% of the participants used the apps more than 5 times. To get information from PPDRs, more participants used Permiloc which is not surprising as it is an easy way to receive information from PPDRs and is not used to send information from citizens to PPDRs, whereas Twitter required to look for PPDRs' tweets among the hundreds of tweets from citizens. Even though, it is very interesting to note that most participants used Twitter quite extensively during the showcase although the majority had never used it before. We can therefore suppose that in a major crisis Twitter would be one of the communication means used by citizens to exchange information with PPDRs, which confirms the lessons learned from recent disasters.

The frequency of use for Twitter was higher than Permiloc, mainly due to transmission problems in Montparnasse station for Permiloc.



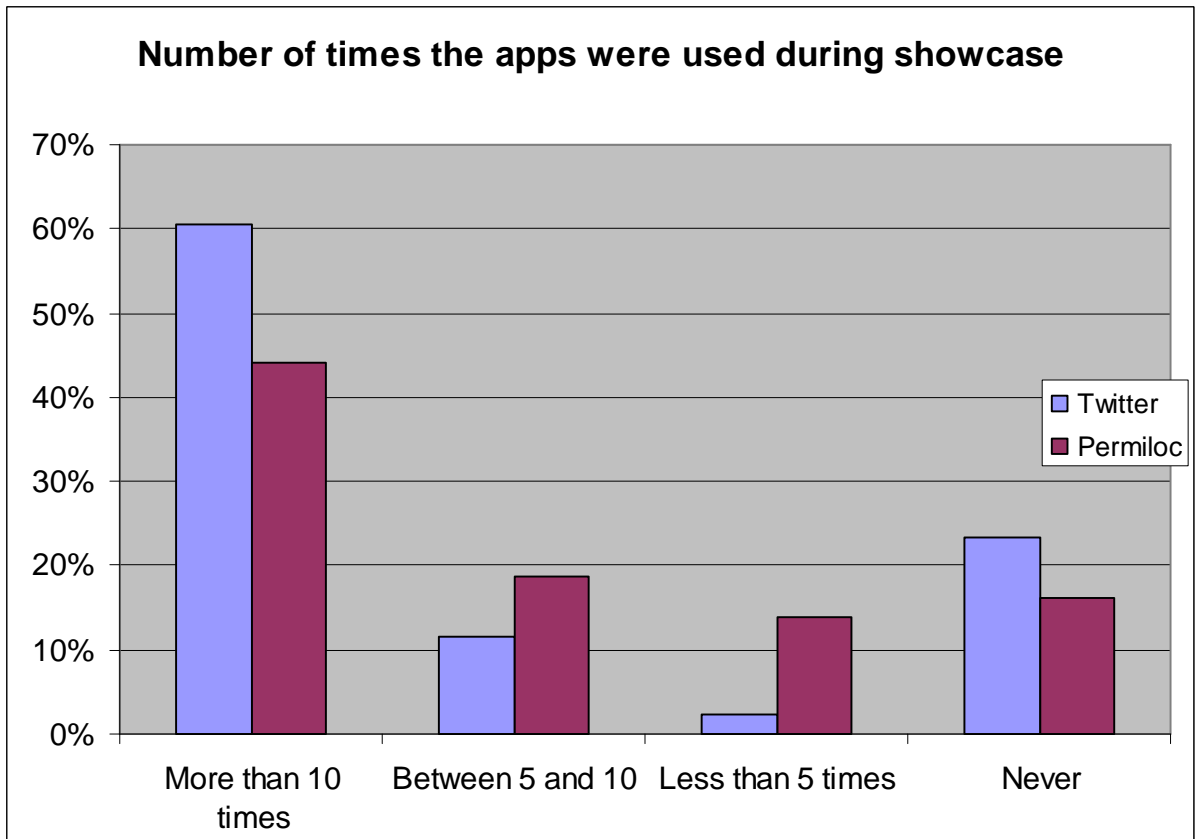


Figure 4: Frequency of apps' use during showcase (43 answers)

Twitter was mostly used to give info, obtain info and chat. Relaying information was not done that much as it wasn't possible to re-tweet information inside the private network (to relay info it was necessary to retype it). Some people were designated as spammers and had to tweet on each and everything to have as many tweets as possible during the showcase and see if iSAR+ tools could detect the relevant information among the spams.

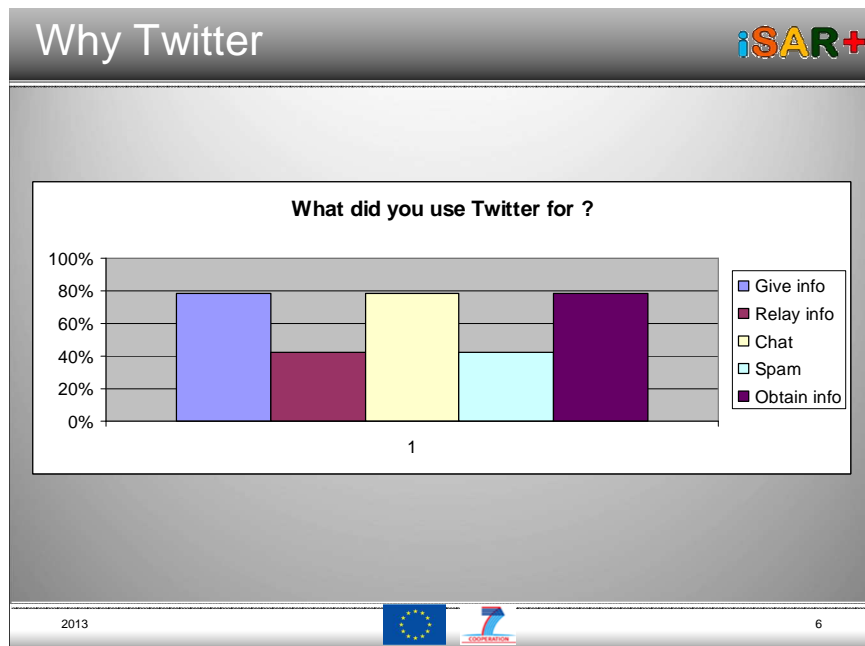


Figure 5: What was Twitter used for (answers from the 33 people who used Twitter)

Both apps were perceived positively by the participants. The main negative aspect mentioned was the excessive latency in the reception of information on Permiloc for most participants; this is quite normal as Permiloc targets people who takes more time and there were communication problems within Montparnasse station. The use of both apps was found rather complicated at first sight (which is not very surprising as they all discovered Permiloc just before the showcase and most of them didn't know Twitter either) but easy to learn.

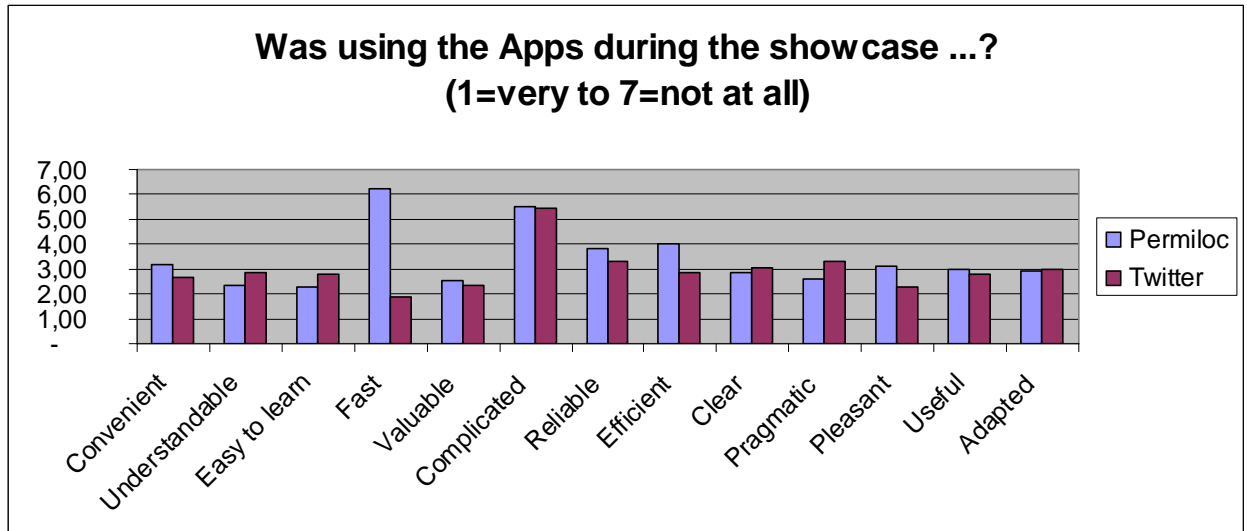


Figure 6: Feeling about the apps (Twitter: 33 answers, Perlimoc: 35 answers)

Concerning the info sent by PPDRs it was considered, for both applications, quite efficient, very useful and not confusing.

Participants would have liked more tweets from the PPDRs and highlighted the fact that it was difficult to see the tweets from PPDRs among all the tweets (only 67% of the people using Twitter saw the messages from the PPDRs).

Note: It is interesting to observe that only 700 tweets were created during the showcase which is way below what would happen in a real crisis situation. Therefore in a real situation PPDR's tweets would be even more drawn in the whole message flow.

Citizens pointed out that photos attached to the alerts to direct people to the grouping points are only interesting for people already familiar with the surroundings.

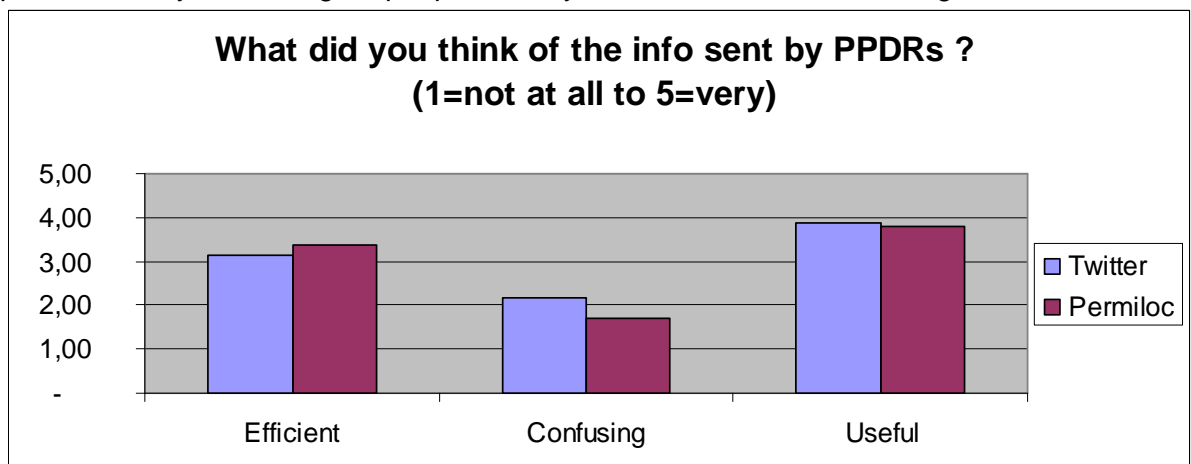


Figure 7: Feeling about info sent by PPDRs (answers from the 22 people who saw the tweets from the PPDRs and the 33 people who saw the PPDRs' messages on Permiloc)



### **3.4 Closing notes**

The aim of the workshops is to present and discuss intermediate/final results as well as requirements and expectations with end-users community (PPDR's, citizens).

This second showcase proved the interest of iSAR+ concept for the interaction between PPDRs and citizens during a major crisis, both to benefit from the information coming from Citizens, and to allow PPDRs to use the iSAR+ platform as a communication channel with Citizens

## **4 The Finnish showcase workshop**

The third stage of iSAR+ focused on developing an enhanced prototype based on the output (user requirements, observations, discussion and the feedback captured from the end-users in the workshop session) from the FR showcase. The Finnish showcase aimed at validating the enhanced iSAR+ requirements. The iSAR+ prototype has been documented in the deliverable "D2.231 – iSAR+ Concept Prototype".

Finnish user showcase was organized in Kuopio, at Emergency Services College's facilities on February 10<sup>th</sup> 2015 and the related workshop on February 11<sup>th</sup> 2015. Finnish user showcase was organized along with Crises and Large Scale Emergencies exercise of Emergency Services College's fire officer students. Crises and Large Scale Emergencies exercise is part of studies of Rescue Activities Management of the graduating course of fire officer and fire sub-officer students. iSAR+ tools were used in three of the scenarios simulated in this exercise.

End-user community was represented in the final showcase both by Finnish PPDR and citizens. The PPDRs that participated the Finnish user showcase were ESC fire officer students and personnel from North-Savo Rescue Department, Eastern Finland Police Department and the City of Kuopio. Citizen players were recruited among the students from the University of Eastern Finland, Emergency Services College and from Kuopio Red Cross and Voluntary Rescue Services (VAPEPA).

After the exercise, feedback was collected from the participants (PPDRs, citizens and observers), in order to capture user experiences and potential improvements regarding the iSAR+ platform. The feedback was then analyzed and discussed in an iSAR+ workshop by iSAR+ participants, observers, citizens, and PPDR representatives.

The main objectives of the workshop were to:

- Analyze the feedback and results of the FI showcase
- Discuss the FI showcase results and the applicability and usefulness of iSAR+ concept as a whole together with the end-user community

The showcase organization and results are presented in D2.265 – FI Showcase Report, consisting of the plan, the execution and the results of the FI Showcase.

### **4.1 Participants**

All the FI Showcase Participants and Observers, and also representatives from the end-user community were invited to participate in the workshop.

The following table presents the participants list:



<b>TEKEVER</b>	João Belfo Luís Simão Filipa Martins
<b>ESC</b>	Laura Hokkanen
<b>DEVERYWARE</b>	Bertrand Casse
<b>EMAUG</b>	Pinar Küçükbalaban Hermann Szymczak
<b>ITTI Sp z o.o.</b>	Marcin Przybyszewski
<b>NYPA</b>	Tom Stirling
<b>POLAMK</b>	Terhi Kankaanranta Kari Pylväs
<b>PPSL</b>	Stéphane Braudel
<b>PSP</b>	Rui Gouveia Pedro Grilo
<b>PSPELA</b>	Reija Huttunen Sami Nurminen Petteri Hynönen
<b>TCD</b>	Michael Cooke Derek Ross Sarah Curristan
<b>THALES</b>	Claire Fraboulet Laudy Thomas Delavallade
<b>UEF</b>	Niina Päivinen Marko Jäntti Taina Kurki Matti Nykänen
<b>PPDR players</b>	Taru Kokkonen, Raija Korhonen, Terhi Leppänen (City administration of Kuopio). Also Sami Nurminen and Petteri Hynönen from PSPELA participated as PPDR players.
<b>REA</b>	Stefano D'Orilia
	Soren Duus Ostergaard
<b>Media</b>	Nuno Lourenço João Pincha

## 4.2 Program

Hour	Item
09:30	iSAR+ Citizen Survey / Pinar Küçükbalaban and Hermann Szymczak (EMAUG)
	Citizen Feedback / Marko Jäntti (UEF)
	PPDR Feedback / Laura Hokkanen (ESC)
	Discussion
12:00	Host Lunch
13:00	End of the workshop

## 4.3 Proceedings

The workshop started with a presentation of iSAR+ task 4.1 Citizen Survey's preliminary results given by Pinar Küçükbalaban and Hermann Szymczak from EMAUG.

After that, Marko Jäntti (UEF) presented the analysis of citizens' feedback and Laura Hokkanen (ESC) presented the feedback obtained from the PPDRs who used the different tools during the showcase.<sup>4</sup> The workshop continued with a session of questions and answers between the partners, the PPDRs and citizens, supported by non-professional translators. In the end of the workshop, iSAR+ project officer and project reviewer were asked to present their comments. These comments considered the future exploitation of the iSAR+ platform and business / action plan on what happens after the project. From the point of view of the future life of iSAR+ solutions the idea of separate building blocks was considered interesting.

The main output from these feedbacks and discussion was a set of grouped conclusions that are presented in the annex 2 of this document. These conclusions are organized similarly as the conclusions of the PT and FR showcase:

- New requirements – which concerns any feedback potentially associated with requirements that the iSAR+ project had not identified;
- Requirements consolidation – which concerns the feedback contributing to requirements already identified in the iSAR+ requirements baseline, that could now be consolidated by confirmation or better clarification;
- Goals and Schedule – which concern feedback that might affect the iSAR+ goals and schedule;
- Adoption roadmap – which concerns the viability and plans for the end users community to actually use iSAR+ solutions in real world situations;
- Business and exploitation – which concerns the feedback on the potential commercial exploitation of the iSAR+ solutions.

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<sup>4</sup> FI showcase observers were also asked to fill in an observation form. Feedback from five observation forms returned after the showcase was not presented at the workshop. Observers' feedback is shortly summarized in D2.265.

### 4.3.1 PPDRs' feedback

iSAR+ tools were used by total of eight PPDRs and city administration players. After the showcase these players were asked to provide feedback by answering a short survey. Seven of the eight players filled the feedback form. Five of these players were male and two female, and they were between 41 and 60 years of age. Most of the participating PPDRs used the iSAR+ tools throughout the whole showcase. They estimated that on average they spent about 200 minutes on using the iSAR+ tools during the showcase. PPDR players in FI showcase were representatives of municipal actors, rescue services and police.

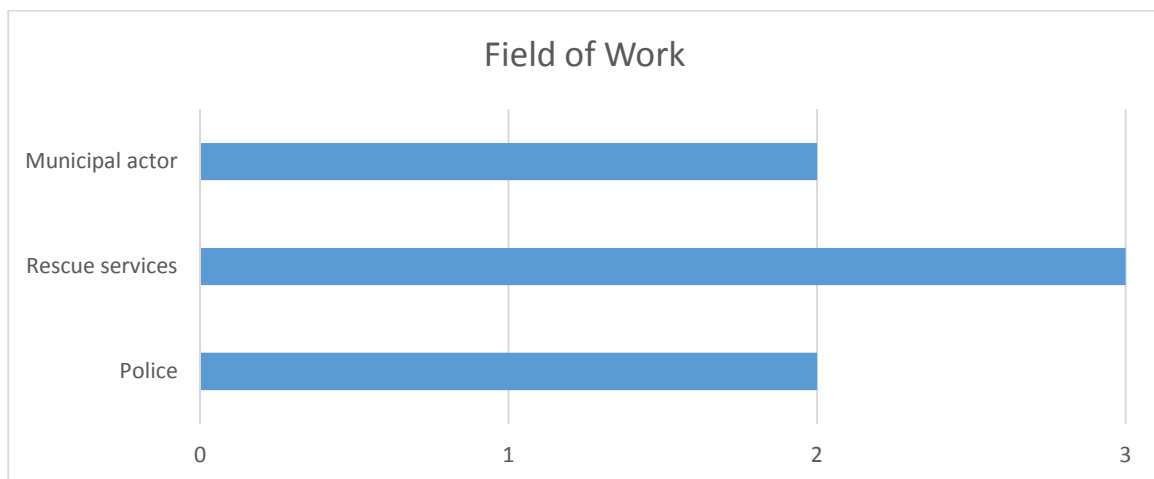


Figure 8. Field of Work of the FI showcase PPDR players (Number of respondents)

FI showcase PPDR players were familiar with using social media: all of them reported to use social media at least several times a week.

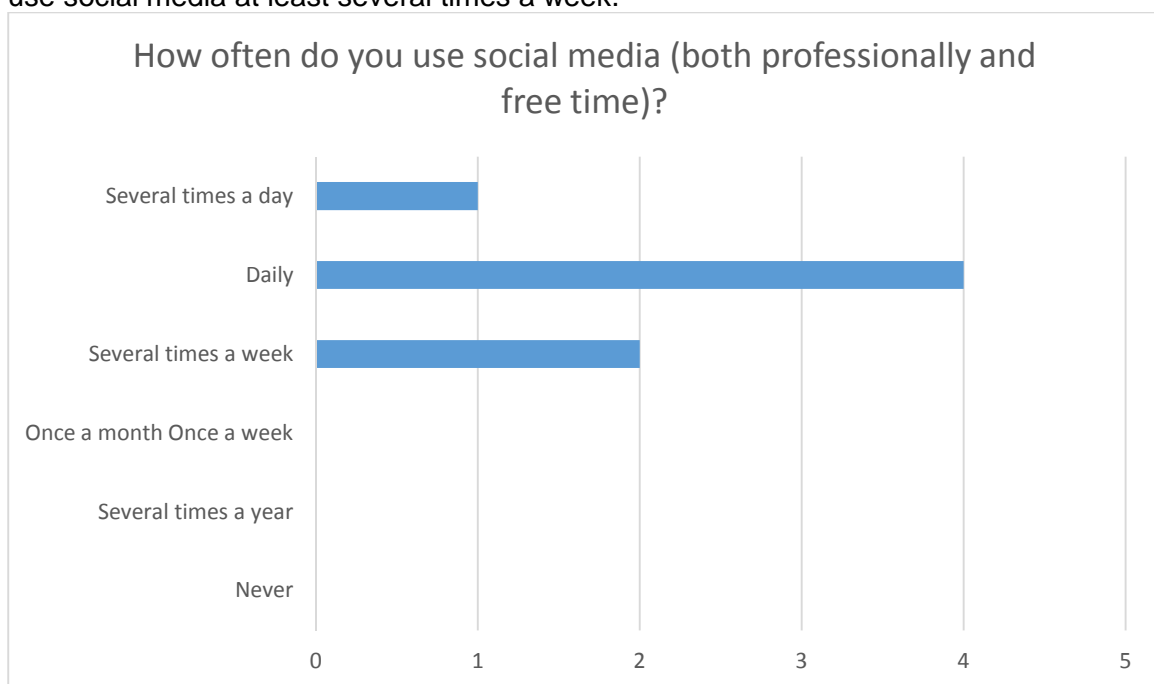


Figure 9. How often do you use social media? (Number of respondents)**Error! Not a valid link.**

Most of the FI showcase PPDR players considered using the tools convenient, comprehensible and easy to learn. Using the iSAR+ tools was also seen more as fast than as slow and more easy than complicated. PPDRs found the iSAR+ tools relatively efficient and clear to use. Using the tools was also considered pragmatic and quite useful.

	1	2	3	4	5	6	7		Average
convenient	3	2	1	0	0	0	0	inconvenient	1,67
comprehensible	2	3	1	0	0	0	0	not comprehensible	1,83
easy to learn	3	1	2	0	0	0	0	hard to learn	1,83
fast	3	1	1	0	1	0	0	slow	2,17
supportive	2	3	1	0	0	0	0	hindering	1,83
complicated	0	0	0	1	1	3	1	easy	5,67
efficient	1	2	1	2	0	0	0	inefficient	2,67
clear	2	2	2	0	0	0	0	confusing	2
pragmatic	1	3	1	1	0	0	0	not pragmatic	2,33
useful	1	1	3	1	0	0	0	useless	2,67

Table 1. In my opinion using the iSAR+ tool was...

The PPDR players of FI showcase were asked to indicate the degree to which they agree or disagree with statements considering usefulness and utility of the iSAR+ tools and similar functionalities. The PPDR players somewhat agreed that iSAR+ tools would be useful in their line of work and that they would be moderately easy to integrate with other tools used in their line of work. PPDRs also agreed that such functionalities are useful in communication related to crisis response. Few problems were encountered with iSAR+ tools during the exercise, which explains the bit lower average regarding statement “iSAR+ tool worked reliably”.

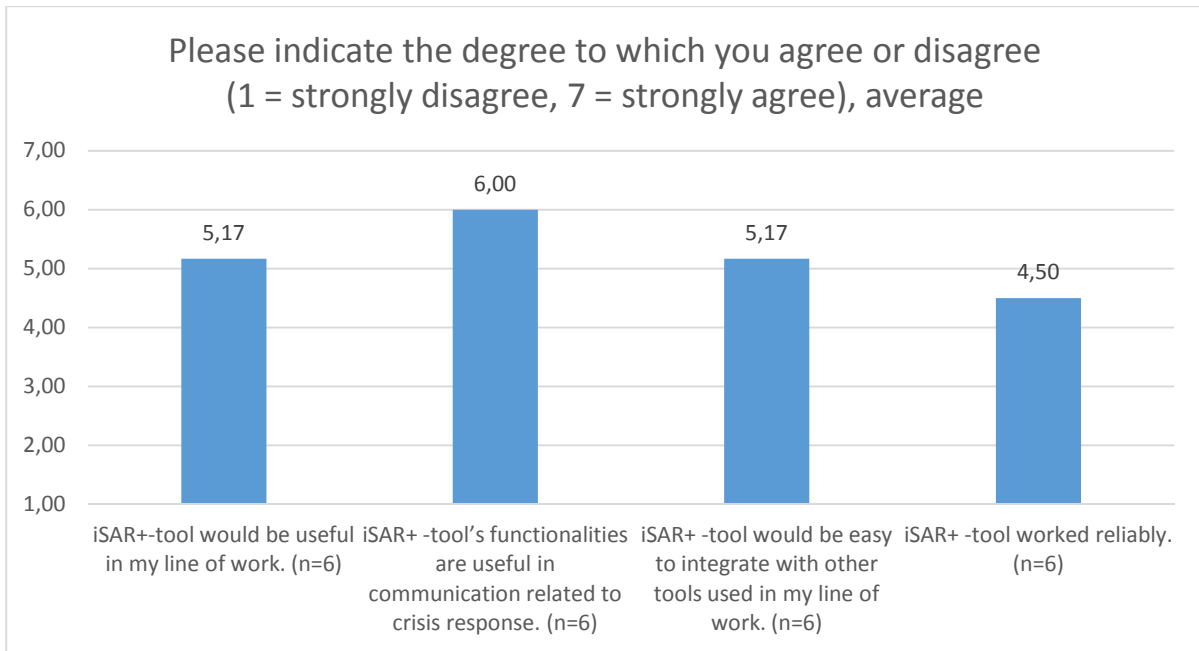


Figure 10. Please indicate the degree to which you agree or disagree with each of the following statements.

Considering the overall results of the exercise/showcase, most PPDR players found using the iSAR+ tools at least somewhat useful, and considering their tasks during the exercise, moderately useful. Survey respondents also indicated that given that they had access to the iSAR+ tools or similar, they would use it.

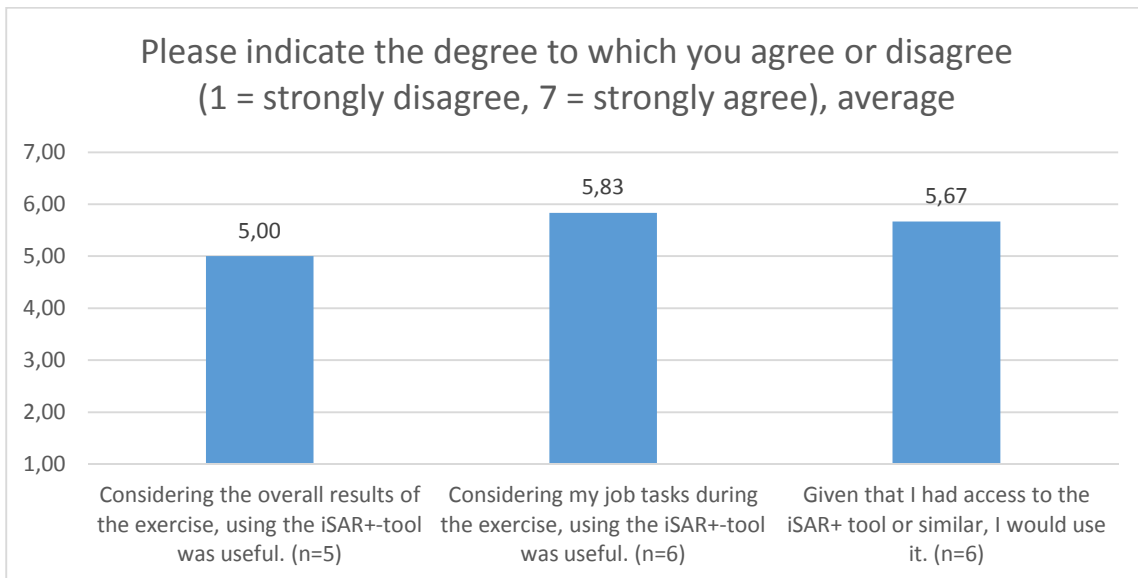


Figure 11. Please indicate the degree to which you agree or disagree with each of the following statements.

Open feedback of the PPDR survey showed that the FI showcase participants found using the iSAR+ tools very interesting and quite easy. Such tools were considered useful in crises management, although ensuring the required resources was seen problematic. Distribution of fast and reliable information was seen important. During the showcase rescue services player used the OsintLab for social media monitoring and analysis – this would have interested the other parties as well.





### 4.3.2 PPDRs' general feedback discussion

During the discussion between the PPDR players and iSAR+ partners the PPDRs using the iSAR+ tools considered them to be easy to use and useful for picking up important information from the social media.

From the PPDRs' point of view, iSAR+ tools were considered useful for communications during crisis. However, they considered social media as an additional communication channel. The PPDRs agreed that the kind of tools used during the exercise could not replace calls to emergency number 112.

Although considered useful, the available resources were pointed out as a challenge for introducing these kinds of tools in crises management in Finland. In real life emergencies there might not be personnel available for using such tools, at least not as many as in this showcase. The Finnish PPDRs acknowledged the possibility of false information received from social media, but they did not consider it to prevent the utilization of social media. National laws and regulations on storage of data need to be complied when using these kinds of tools.

### 4.3.3 Citizens' feedbacks

Around 30 citizens participated in the showcase. Citizen players were students and personnel from the University of Eastern Finland and Emergency Services College and volunteers from the Finnish Red Cross and Voluntary Rescue Services.

27 feedback questionnaires were filled in after the showcase. 58 % of the respondents were men, 42 % women. Almost half of the players were 20–25 years old and most of them students. According to the survey results, surprisingly 64 % of the citizen players never use Twitter.

The FI showcase citizen participants generally use their mobile device for variety of tasks, all of them to check their emails, to write messages, and to make phone calls.

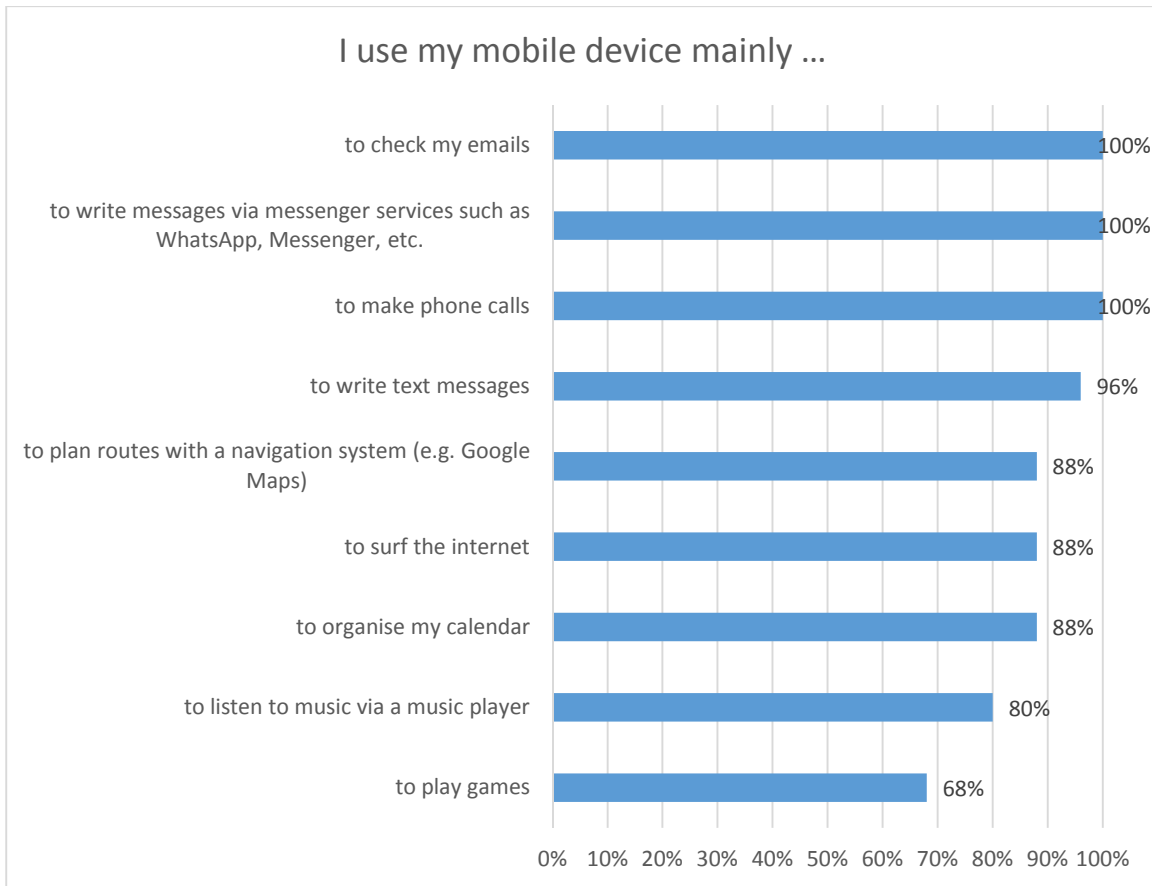


Figure 12. Usual use of mobile device (25 answers)

On average, the showcase was found entertaining and not too stressful. Overall, it was considered a good exercise.

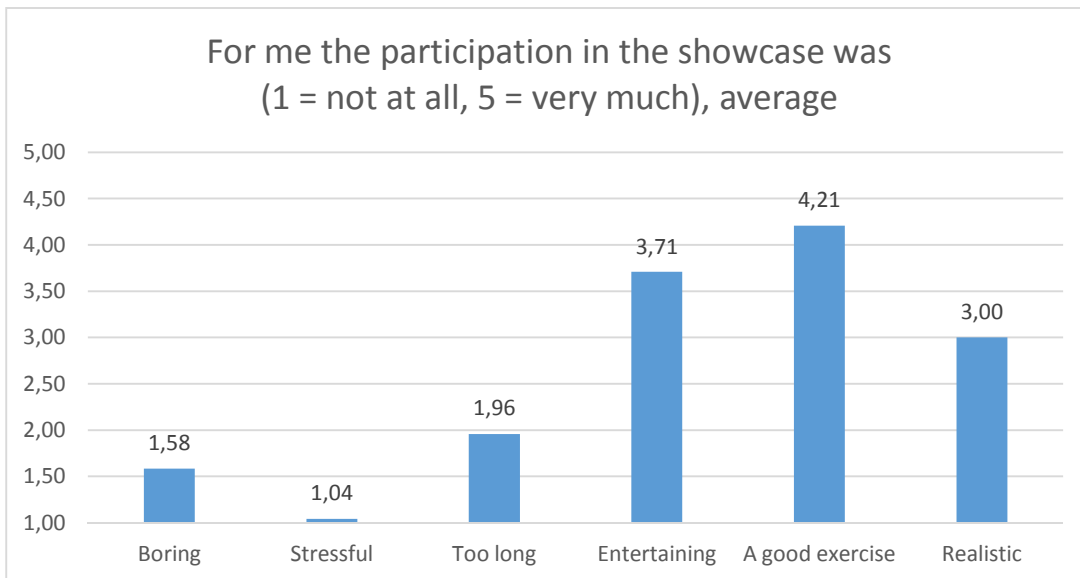


Figure 13: Interest for the showcase (25 answers)

In Finnish showcase three citizen participants downloaded Permiloc application prior to the showcase and used it during the live demonstrations, since the use of Permiloc was demonstrated already in the French showcase. User experiences considering the

application of the three players differed from each other significantly; thus, it is not reasonable to draw any conclusions based on them.

Before the beginning of the showcase, citizens were asked to download Twitter. All the participants were given specific Twitter accounts for a private Twitter network created for the showcase. Only these registered accounts could see the updates posted during the showcase scenarios. Most of the citizens used only Twitter, and all of them reported to have used it ten times or more often during the showcase – in total, hundreds of tweets were sent, which shows that the use of Twitter was not considered difficult. Permiloc was used less than ten times by those three players who had it installed.

Majority of the citizens used Twitter to report events and discuss with others. Retweeting the information considered important by the players was not possible inside the private network, and to retweet a post it was necessary to retype it; still this was done by most of the players. Some of the citizen players were advised to “spam” and create unimportant tweets, as some were encouraged to send troll messages; this was done in order to check whether iSAR+ tools could detect the relevant information among the noise.

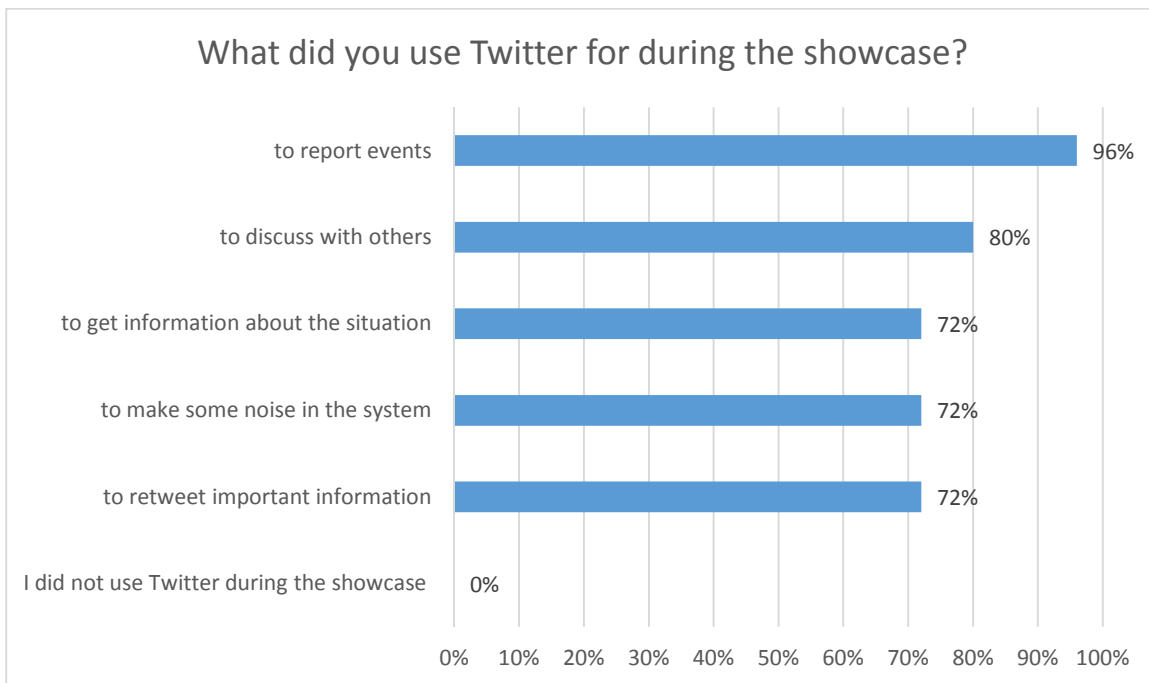


Figure 14: What was Twitter used for (25 answers)

Using social media through a Twitter app was considered easy to learn, easy and fast – also this shows that the lack of prior use of Twitter was not a problem for citizen players. Citizen participants also perceived using Twitter quite convenient and comprehensible, and more supportive than hindering. Concerns of the reliability, efficiency and clearness of the social media service used were more dispersed among the respondents. Citizen players considered using Twitter during the showcase more pragmatic than not pragmatic. It was also considered quite pleasant and useful and suited for the showcase.

convenient	48%	20%	16%	8%	8%	0%	0%	inconvenient
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comprehensible	48%	24%	12%	8%	8%	0%	0%	not comprehensible
easy to learn	63%	21%	8%	4%	4%	0%	0%	hard to learn
fast	56%	12%	16%	12%	0%	4%	0%	slow
supportive	36%	4%	32%	16%	12%	0%	0%	hindering
complicated	4%	0%	12%	8%	12%	8%	56%	easy
reliable	12%	4%	28%	24%	20%	12%	0%	unreliable
efficient	16%	8%	32%	24%	12%	8%	0%	inefficient
clear	8%	4%	32%	20%	20%	12%	4%	confusing
pragmatic	8%	12%	44%	20%	12%	4%	0%	not pragmatic
pleasant	16%	28%	36%	16%	4%	0%	0%	unpleasant
useful	4%	28%	28%	20%	20%	0%	0%	useless
suited	8%	20%	36%	32%	0%	4%	0%	unsuited

Table 2: Was using Twitter during the Showcase (25 answers)

All citizen players saw tweets produced by the PPDRs during the showcase. The official communication of the PPDRs via Twitter during the Showcase was considered quite efficient and helpful and not confusing.

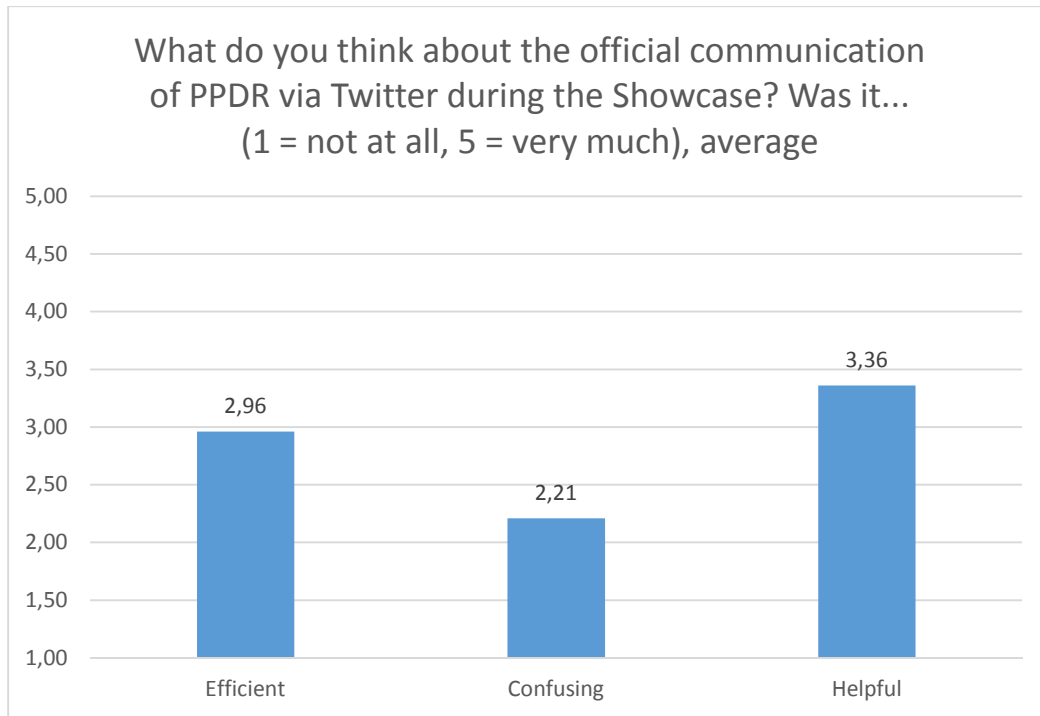


Figure 15: Opinions about information sent by PPDRs (25 answers)

Citizen participants were asked to give open feedback e.g. on whether this kind of bi-directional communication between PPDRs and citizens is useful and would they use these kinds of tools in real life crises. Using social media in communication between PPDRs and citizens was seen useful in crisis situations, especially if PPDRs are active in their communication and their messages are clear and distributed fast. It was however pointed out in few of the feedbacks that implementing these kinds of new practices takes time. Using common hashtags in updates about the ongoing situations would have been useful; in this exercise, the citizen players thought that the PPDRs could have recommended some hashtags. As during the French Showcase, in Finland the citizen participants were worried that the important updates of the PPDRs might not be noticed among the flood of tweets. Spam and unreliable information was seen as a disadvantage of using social media during crisis situations.

#### 4.3.4 Citizens' general feedback discussion

One of the citizen players was available to join the workshop for feedback discussion. This player gave few remarks of the showcase, considering e.g. the choice of Twitter as the social media service used during the exercise. She also commented that following social media and in this case the flow of tweets – of which some are true, some spam and some trolls – requires skills on media literacy, especially when considering the reliability of the information provided on social networks. During the scenarios demonstrated in the iSAR+ showcase there was genuine need of official information, as it there would be in real life situations. Pictures were found useful information, also from the point of view that they are helpful for foreigners who do not know the language used in the tweets.



#### 4.4 Closing notes

The aim of the workshops was to present and discuss intermediate/final results as well as requirements and expectations with end-users community (PPDR's, citizens). The third showcase confirmed the outcome of the FR showcase of the interest for and usefulness of iSAR+ concept for the interaction between PPDRs and citizens during a major crisis, both to benefit from the information coming from citizens, and to allow PPDRs to use the iSAR+ platform as a communication channel with citizens.

### 5 The iSAR+ US workshop

Since its beginning, iSAR+ invested in a wide dissemination of its own produced results, an effort reinforced by the gathering of relevant end-users and by being attentive to widely known and recognized conferences or workshops dedicated to research communities, companies and professionals working in public safety services.

As stated in Goal 13 - Reach a wide dissemination of results, "the transatlantic iSAR+ reach sustained by the Consortium's involvement of probono Chilean and American emergency-related consultants and the opportunity to host an iSAR+ Workshop in the U.S. to disseminate the iSAR+ final results aids this goals' attainment". As per the initial plan (refer to DoW) the US company EBR was in charge of the organization of the US workshop. However this company was closed during iSAR+ project and other PoCs became unavailable, facts that seriously threatened the contact with US end-users, as well as the implementation of the mitigation plan established for Risk 5.

Risk 5 description	Mitigation plan
Adoption of iSAR+ guidelines and platform at EU-level only	Involvement of US associated partners (SME EBR and a researcher from the University of New Jersey) Conduct a project's workshop on the USA

iSAR+ consortium through TCD was nevertheless able to establish contact with Boston Emergency Medical Services to organize a workshop in Boston involving the most relevant PPDRs of this City to discuss and share knowledge regarding iSAR+ research dimensions.

Tekever, with the support of TCD, was therefore able to re-establish the original idea of organizing a workshop with US end-users, towards the Goal 13 and the mitigation of Risk 5.

The workshop occurred in the last phase of iSAR+ project, at the time when the THEO individual recommendations were integrated towards the preparation of the final guidelines and roadmap. This workshop was therefore a crucial input to be taken into account for the iSAR+ Guidelines and Roadmap which are the most important outcomes of the project.

The workshop occurred on May 8<sup>th</sup>, in the Boston EMS facilities, with the participation of THEO WP leaders, the iSAR+ coordinators and the following end-users' entities:

- Boston Emergency Medical Services (EMS);
- Boston Police Department (PD);
- Boston Fire Department (FD);
- McCall Ambulance;
- PSNet (Interisle).

The main objective defined for this workshop was to **Share of Knowledge** through:



- Presentation and discussion on iSAR+ platform and recommendations;
- Analysis of Boston EMS experience on the use of Social Media in Crisis/Emergency Management.

### 5.1 Participants

<b>TEKEVER</b>	André Oliveira
<b>EMAUG</b>	Dieter Rhode
<b>TCD</b>	Derek Ross
<b>THALES</b>	Grégoire Biette
<b>Boston Emergency Medical Services (EMS)</b>	Steve Hillson Dan White Bruce Proulx Adam Corneille Susan Schiller Joe O'Hare Brendan Kearney
<b>Boston Police Department (PD)</b>	John Daley Michael Cox
<b>Boston Fire Department (FD)</b>	Jason MacDonald
<b>Mccall Ambulance</b>	Kevin Rosado
<b>PSNet (Interisle)</b>	Chuck Wade

### 5.2 Program

Hour	Item
10:00	Welcoming remarks – Steve Hillson (Boston EMS)
10:05	Presentation of iSAR+ project overview – André Oliveira
10:15	Organizational analysis work package presentation and discussion – Derek Ross
11:00	Human Analysis work package presentation and discussion – Dieter Rhode
11:45	Technological Analysis work package presentation and discussion – Grégoire Biette
12:30	Closing remarks – Steve Hillson
12:35	Host Lunch
13:30	Tours of Various Public Safety Communications Centers
16:30	End of workshop



## 5.3 Proceedings

André Oliveira made a short general presentation about the iSAR+ project.

### 5.3.1 Presentation of organizational analysis

Derek Ross started his presentation with a short story about how the contact between TCD and Boston EMS began. Jake Doyle from Boston EMS went to Dublin and incidentally struck a conversation with Dublin fire brigade. Two years afterwards he returned to Dublin and made a presentation about the events of the Boston marathon where TCD was present. Based on these exchanges both parties agreed to make a workshop based on the iSAR+ project.

Derek Ross then made a short demonstration of the iSAR+ platform by creating events with the citizen module and processing that information through the PPDR module. This was intended to provide workshop participants with some context and understanding of the iSAR+ platform in practice and how presented research findings related to its use.

Susan Schiller (EMS) commented about the most adequate way to use the iSAR+ platform which she thought would be to mine directly information from the sites and applications that people already use. Derek and Gregoire explained that this capability exists in iSAR+ and also that information input directly through the iSAR+ platform means it's been input intentionally.

John Daley (Boston PD) asked if there was any feedback to citizens after information is introduced in the platform. Derek mentioned this is possible and was discussed but hasn't been implemented yet.

Derek Ross proceeded with the presentation of the organizational dimension of iSAR+. He explained what were the main aspects considered and addressed by the project. The presentation set out the activities of PPDRs and citizens around the use of social media in emergencies making the point that the research in iSAR+ in parts attempts to reconcile the gaps in practice. Derek went on to outline the research approach following the CONOPS framework. He presented several definitions of CONOPS and checked that workshop participants were familiar with the idea of a concept of operations, which they were. He then introduced the idea of a more human centered CONOPS that seeks to understand operational realities of human activity in emergency management. Following this Derek framed the iSAR+ concept in the emergency response phase of the emergency management system. This was done by setting out a scenario of a large building fire that was based on the Portuguese Showcase event script. This was done to provide workshop participants with an insight as to how some of the research findings were elicited from end-users through the iSAR+ project. It also provided workshop participants with an opportunity to examine and validate the emergency management system structure presented to them, and the potential use of iSAR+ within that system. Participants reported that the approach was valid from their perspective and they considered how iSAR+ could be used in each of the following structures presented to them:

#### **The Communication Centre**

The US workshop participants noted that their call takers use ICT for call processing and dispatch operations.

#### **Operational Response**

Participants were of the view that if incident commanders are using command support information technologies then they may be in a position to receive iSAR+ information. However, they agreed with the view of EU PPDRs that the amount of information they received would need to be limited and already analyzed for their consumption.





### **Tactical Response**

The US participants were of the opinion that iSAR+ could provide potential information to the tactical commanders. It is worth noting that the term 'Tactical' is often used for front line response operations in the US and the use of the term needed to be clarified.

### **Strategic Response**

The participants were of the view that iSAR+ could have significant potential at the Strategic level given the relatively important amount of time to process information at this level.

The US participants also considered the operation of iSAR+ as a hub within the emergency management system feeding each of the response structures compared with the idea of an iSAR+ analyst or analysts working at each level of the emergency management system.

Derek Ross outlined some of the findings from the organizational research in iSAR+. He stated that the concept was accepted by PPDRs, although respondents expressed concerns about data security. The ability of citizens to provide operationally useful and valid information was also discussed. The group examined the idea of social media monitoring and targeted messaging through the iSAR+ citizen portal. Participants also discussed the idea of an i911/i112 system.

Discussions went on about the opportunity of an internet based 911 call capability in the US. This will be part of the next generation 911 that, like the i112 in Europe, will not happen anytime soon, mainly due to enterprise culture and inertia.

EMS (Susan Schiller) asked if people are more or less likely to use this sort of technology if they need to geo-locate. If EMS gets more than 3 calls on the same incident then it usually means the incident is real. Geo-location can thus be extremely useful. Derek Ross mentioned there is a big difference between reporting things as a victim or as witness. While the former may be more than willing to share his/her location, the latter may not.

Derek Ross concluded his presentation with a general finding that iSAR+ appears to align with emergency management systems. This is in part due to the relative flexibility and agile nature of iSAR+ that can enable PPDRs to configure it to their own needs. Workshop participants questioned how it can be configured for different users and multiple users within one incident. Derek Ross noted that the CONOPS approach can be useful to inform about the implementation of iSAR+, although this would require resources to ensure success. Derek Ross noted that several questions would have to be answered to help ensure the implementation of iSAR+:

- Who is responsible for iSAR+?
  - Workshop participants reported that Boston has an emergency response office that combines people from different services. They would be responsible for a system like iSAR+.
- Who are the operators of iSAR+?
- Where does it fit in emergency systems? How could it be used?

### **5.3.2 Presentation of human analysis**

Dieter Rhode presented the human dimension of iSAR+ and the results of the iSAR+ surveys. The presentation highlighted outcomes of both surveys done in the human section of iSAR+. It included PPDRs view on new media and citizens' approach on new media in crisis situations as well as the guidelines especially for PPDRs in crisis situations. The presentation focused on the different types of media and how cultural, type of institution, work related and societal issues could influence the perception of social media. Special



emphasis was put on the transfer of European differences and what they could conceptually mean for US member states.

US end-users suggested that access and login configuration required for different users in different organizations depend on the type of event.

To the question raised about the few participants from the Police in the survey, Dieter Rhode answered that this was mostly due to structural issues (e.g. police officers in Germany cannot participate in surveys).

Dieter Rhode stressed the differences between countries, services and types of people who replied to the surveys.

Chuck Wade asked if the project had considered or taken into consideration reverse 911 capabilities (i.e. reaching out to the public through 911). Dieter Rhode mentioned France has such a system.

### 5.3.3 Presentation of technological analysis

Grégoire Biette presented the technological dimension of iSAR+ with a specific focus on big data and data mining. He went through the different tools and applications being used in the iSAR+ platform.

EMS (Susan Schiller) commented that iSAR+ seems to be more applicable in the recovery and aftermath phase of events and said the increase of its use in other phases may occur when people get more used to the platform. The project members mentioned there are three main aspects that influence the use of iSAR+ during the different phases of an event: experience in its use, a technological challenge related to the (automated) quick processing of big data (speeding up the validation chain for social network data) and the trust issue.

## 5.4 Closing notes

This workshop was a very important first approach. It was very useful for the project to be able to discuss and present iSAR+ work to Boston Emergency Services.

It was agreed to keep an open communications channel between the project and the Boston services for further exchange of experiences and information. It was also decided to open a dedicated account for Boston end-users so they can test the platform.

## 6 The iSAR+ final presentation workshop

The final workshop closes the research activities performed in the scope of iSAR+. It occurred on June 25<sup>th</sup>, in Lisbon, Portugal, at the Police Sciences and Internal Security's High Institute, the "Academy" of PSP (Portuguese Safety Police) officers.

The objective of this workshop was to present a summary of the **"iSAR+ Guidelines & Roadmap"** and the **"iSAR+ Business Plan"**.

For this purpose iSAR+ consortium invited:

- All end-users involved during iSAR+ life-cycle;



- The project Officer;
- The project EC Reviewer;
- The coordinators of all relevant EC projects;
- Entities selected by each partner.

It was also announced in the invitations that the presentations would be filmed for dissemination purposes.

## **6.1 Participants**

The following table presents the confirmed presences to this workshop.

Entity	Country	Name	Email	Role
Vrije Universiteit Brussel	Belgium	Efrain Castaneda-Mogollon	castaneda.mogollon@gmail.com	Researcher
EC - Research Executive Agency	Denmark	Søren Duus Østergaard	soren@duus.com	Project Reviewer
Emergency Services College	Finland	Esa Kokki	esa.kokki@pelastusopisto.fi	Research Director
Emergency Services College	Finland	Laura Hokkanen	laura.hokkanen@pelastusopisto.fi	Partner – End User
Ministry of Interior	Finland	Vepsäläinen Perttu	perttu.Vepsalainen@intermin.fi	Web Designer
North Savo Rescue Department	Finland	Petteri Hynönen	petteri.hynonen@kuopio.fi	Fire Chief – End User
North Savo Rescue Department	Finland	Reija Huttunen	reija.huttunen@kuopio.fi	Partner – End User
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Entity	Country	Name	Email	Role
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**Table 2 – Confirmed presences for the Final Workshop**

## 6.2 Program

Hour	Item
14:30	Workshop Registration
15:00	<b>Project Overview</b> , by <b>João Belfo</b> from <i>Tekever</i> , project coordinator
15:15	Opening Keynote – “ <b>Introduction to Integrated System for Relief Operations</b> ”, by <b>Marco Martins</b> from the <i>Portuguese National Authority for Civil Protection</i> , National Operations Assistant
15:30	<b>Human Perspective</b> , by <b>Dieter Rhode</b> from the <i>Ernst-Moritz-Arndt-Universität Greifswald (EMAUG)</i> , Germany, leader of Human analysis work package
16:00	Coffee break
16:15	<b>Organizational Guidelines</b> , by <b>Derek Ross</b> from the <i>Trinity College of Dublin (TCD)</i> , Ireland, leader of Organizational analysis work package
17:00	<b>Technological Guidelines</b> , by <b>Thomas Delavallade</b> from <i>Thales Communications &amp; Security</i> , France, leader of Technological analysis work package
17:30	<b>Ethical &amp; Legal Considerations</b> , by <b>Rui Gouveia</b> from <i>National Safety Police (PSP)</i> , Portugal, leader of Ethical & Legal analysis work package
17:50	<b>Closing Notes</b> , by <b>João Belfo</b> from <i>Tekever</i> , project coordinator
18:00	End of the workshop

## 6.3 Proceedings

João Belfo, project coordinator, opened the workshop presenting an overview of iSAR+.

- The impact of social media in crisis situation
- The environment of social media use: Online users, sensors, mobile environment, complex network with specific nodes
- Objective of ISAR+ project: Guidelines and platform
- Explanation of THEO dimensions
- Presentation of the work plan strategy, 4 phases: concept, basic prototype, enhanced prototype, Guidelines
- Presentation of the activities performed in each phase and the relevant deliverables.

Marco Martins, national operations assistant of ANPC (Portuguese National Authority for the Civil Protection), was invited to present a Key Note with the title - “*Introduction to integrated system for relief operations*”.

- ANPC plans, coordinates and carry out civil protection policy;
- Prevent-> mitigate-> rescue-> support;
- Integrated system for relief operations: coordination structures (ad hoc), command structures (permanents) in 4 levels: national, 5 district cluster, 18 district, municipal;
- Includes fire brigades, national Police, Republican guard, armed forces, INEM (national medical emergency institute).



Dieter Rhode, leader of Human analysis work package, presented a summary of Human Guidelines:

- Research activities performed in the scope of WP4 – Human Analysis
  - PPDR Survey;
  - Citizens' Survey;
  - Recommendations (guidelines)
    - PPDRs
      - Media and new media in crisis situations
      - Accessibility
      - Type of crisis
      - PPDRs' needs in crisis and new media
      - Citizens' needs and new media
      - Level of involvement and distance to incident
      - Phase specific approach
    - Citizens (Phases: Preparation, Warning, Acute Incident, Aftermath)
- Some of the guidelines were detailed;
- Others can be found in the final guidelines document.

Derek Ross, leader of Organizational analysis work package, presented a summary of Organizational Guidelines:

- Research activities performed in the scope of WP3 – Organizational Analysis
- Notes from the guidelines summary:
  - End-users' community interviewed: Finland, France, Ireland, Norway, UK, Portugal, and Poland;
  - Need to share understanding of COP;
  - Motivation of PPDRs, goals and roles;
  - Mediating effects on the activities of actors:
    - Interview;
    - Showcase observation;
    - Participation in PPDR training;
    - Observation of operational activities;
    - Cooperative evaluation.
  - Important issues:
    - Emergency management system;
    - Inter-organizational coordination;
    - Information in an emergency;
    - Who is responsible for ISAR+ which PPDR?
    - Who are ISAR+ operators;
    - Where does it fit in emergency system?

Thomas Delavallade leader of Technological analysis work package presented a summary of technological guidelines:

- Research activities performed in the scope of WP6 work package and the use of the iSAR+ platform in the showcases;
- Detailed presentation of iSAR+ platform Architecture;



- Presentation of Technological guidelines;
- Presentation of the steps (roadmap) to implement the suggested tools (technologies);
- Presentation of the Business Plan.

Rui Gouveia leader of Ethical & Legal analysis work package presented a summary of Ethical & Legal considerations:

- Research Activities Performed;
- Ethical Considerations:
  - Respect for human dignity;
  - Respect for autonomy, based on people's decisional capacities;
  - The right to physical and mental integrity of the person;
  - Protection of individual privacy and personal data.
- Legal Considerations:
  - Obtain the consent, based on the voluntary and informed involvement of the social media users before gathering their information to iSAR+;
  - The information must be used for the purpose it is being gathered for;
  - Anonymity shall be accepted;
  - The violation of fundamental rights, when required, shall obey the principles of proportionality and necessity;

João Belfo, project coordinator, presented the future of iSAR+, how to implement these guidelines and technologies (platform) and briefly presented the related project SOTERIA.

## **6.4 Closing notes**

This was the last event of iSAR+. In this workshop the project coordinator and the THEO work package leaders presented the result of the research activities performed in the 30 months of this project.

The guidelines document will be closed as well as the business plan and disseminated on the web site and directly sent to all relevant entities.

The presentation film will also be added to iSAR+ web site.





## 7 Conclusions and future work

The workshops benefited from a strong involvement of the end-users community which conducted to the success of these initiatives. They helped consolidate the knowledge and benefits of social media usage in mission critical and safety critical scenarios among PPDRs and citizens.

The questionnaires filled in by the participants (PPDRs and citizens) at the end of each showcase and analyzed during the workshops gave the consortium many inputs and recommendations to enable the validation of iSAR+ platform and its potential improvements.

Distribution of fast and reliable information is considered important by PPDRs and citizens; on this matter, iSAR+ tools were found easy to use and particularly useful for bi-directional communication between PPDRs and citizens (very helpful for crowd management and population information but also to get information from citizens on the field).

Communication on social media being a very sensitive issue the ethical aspect on this matter was judged of utmost importance (type of information that can be disseminated has to be clearly defined). PPDRs also stressed the fact that iSAR+ tools would have to be introduced in the existing processes not to disturb their already working and efficient operational procedures. PPDRs will need to think about a new organization (where will the tools fit in existing emergency systems? How best can they be used? Who will operate them?).

The latter concerns highlighted the interesting and innovative THEO approach, much appreciated by PPDRs.

One of the most important issues raised by PPDRs was that for the moment social media can only be an additional communication channel and iSAR+ tools cannot replace calls to emergency number 112 as PPDRs would not decide an intervention without a direct contact with a citizen or an authority on the spot of the crisis. There is thus still some way to go before shifting to a sole i112 but iSAR+ has paved the way and its sister project SOTERIA (<http://soteria.i112.eu/>) will help carry the idea further among PPDRs as well as other FP7 projects focused on social media for crisis situations.



## 8 Acknowledgements

End-user participants (PPDRs and citizens) who voluntarily gave their time and expertise throughout the showcases and workshops need to be warmly thanked. Without their active participation and useful feedbacks, it would not have been possible to conduct the tasks described in this deliverable.



## Annex 1 – PT Showcase Workshop results

The following table presents the major conclusions that came up from the PT showcase workshop discussions, grouped as defined in paragraph 2.3 of the document D7.731 – iSAR+ Workshops.

<b>Group:</b>	<b>New Requirements</b>
<b><u>Multi language support</u></b> The possibility of the iSAR+ supporting multi-languages in the user interface will be discussed during the next iteration.	
<b><u>Automatic translation of written messages</u></b> It is expected that in some crisis scenarios (like the one used in PT Showcase) some citizens post messages in Facebook are foreigners. This might cause a problem to the operational teams validating the messages. It should be consider automatic translation of messages.	
<b><u>Events organization by date</u></b> iSAR+ platform shall present all events by ordered by descendent occurrence date.	
<b><u>Clean older and invalidated events</u></b> Allow not relevant events to be deleted from the normal validation process.	
<b><u>Information assessment profiles</u></b> Filtering of information between and within PPDRS	
<b><u>Feedback to reporter</u></b> Automatic, content managed, ID reporter	
<b><u>Information Management System (IMS)</u></b> Guidelines for information processing to enable iSAR+ contribute to IMS	
<b><u>Operational resource management</u></b> To help identify and allocate resources to manage incident	
<b>Group:</b>	<b>Requirements consolidation</b>
<b><u>Browser Independent</u></b> iSAR+ Platform usage shall be independent on the browser version (Internet Explorer, Google Chrome, Firefox, etc)	
<b><u>D2.231 – Requirements</u></b> All requirements identified as those to be implemented in the prototype, were tested and validated by the showcase participants.	
<b>Group:</b>	<b>Goals and Schedule</b>
No relevant conclusions were made regarding this topic. Therefore the iSAR+ goals and schedule remain unchanged.	
<b>Group:</b>	<b>Adoption roadmap</b>
<b><u>Pre-requirements to adopt iSAR+</u></b> Identify, in the guidelines, the pre-requirements for a country to fully adopt iSAR+ on crisis management activities, like number of exercises, type of training, etc. It shall be expected that these guidelines might differ from a country to another.	
<b><u>Type of training</u></b> In PT showcase it was clear that operational people receiving and filtering messages would need training not only on how to use iSAR platform but on how to deal with new types of information namely those coming from the Citizens.	
<b><u>Training schools and citizens.</u></b> This kind of training, or the guidelines for the training, is not foreseen in DoW. It has to be confirmed whether it will be included in iSAR+ guidelines or not.	
<b>Group:</b>	<b>Business and Exploitation</b>
No relevant conclusions were made regarding this topic. Therefore the iSAR+ business and exploitation plans remain unchanged.	



Group:	Recommendations for future showcases
<b><u>Date of FR Showcase</u></b> PT showcase was delayed due to, among other reasons, the holiday's season. The same might happen with FR showcase. It is suggested to plan the FR showcase for the beginning of June.	
<b><u>Type of exercise</u></b> Portuguese PPDRs suggested that instead of CPX we should have LIVEX exercises so they can take the opportunity to also evaluate their performance on reacting to crisis situations.	
<b><u>Showcase Stakeholders (players)</u></b> The next showcases should involve more stakeholders like fire services, emergency services, media and citizens.	
<b><u>Interviews to operational teams</u></b> In the next showcases, in the interviews to end-users, the meeting with leaders shall be performed separately from the one performed with other operational members.	
<b><u>Gathering of Comments</u></b> Comments should be collected addressing directly each step of the storyline (timeline), to better understand the associated feature or requirement.	
<b><u>Showcase preparations</u></b> iSAR+ platform user training should be provided for PPDRs taking part in the showcase in advance.	
<b><u>Scenarios well in advance</u></b> To enable process mapping of scenario as per WP3 requirements	
<b><u>SME available during scenario</u></b>	



## Annex 2 – FR Showcase Workshop results

The following table presents the major conclusions that came up from the FR showcase workshop discussions, grouped as defined in paragraph 2.3 of the document D7.731 – iSAR+ Workshops.

<b>Group:</b>	<b>New Requirements</b>
<b><u>Alerts' acknowledgement</u></b> OsintLab should display acknowledgment that alerts have been sent successfully to IPS.	
<b><u>PPDRs' acknowledgement</u></b> The possibility/usefulness for citizens to receive acknowledgment from PPDRs when they send them a message should be studied	
<b><u>Events color</u></b> In the IPS, rules specifying how to choose the level of gravity of an event for choice of an event's color (corresponding to a level of gravity of the information) should be clearly stated in the iSAR+ guidelines or at least recommendations should be given and it should be made clear that PPDRs have to define themselves these rules in their doctrine.	
<b><u>Visibility of information</u></b> Important information in OsintLab should be automatically highlighted (not just a timeline with a color code) to be immediately visible among the pile of rubbish info. The same applies for social networks: find a way to have the info from PPDRs easily visible.	
<b>Group:</b>	<b>Requirements consolidation</b>
<b><u>Browser Independent</u></b> iSAR+ Platform usage shall be independent on the browser version (Internet Explorer, Google Chrome, Firefox, etc)	
<b><u>D2.231 – Requirements</u></b> All requirements identified as those to be implemented in the prototype, were tested and validated by the showcase participants.	
<b><u>Social media watch</u></b> A continuous watch on social media is necessary to predict events (or detect the beginning of events).	
<b><u>Rumors</u></b> Detection of rumors is of utmost importance	
<b>Group:</b>	<b>Goals and Schedule</b>
No relevant conclusions were made regarding this topic. Therefore the iSAR+ goals and schedule remain unchanged.	
<b>Group:</b>	<b>Adoption roadmap</b>
<b><u>Validation loop</u></b> Delay in the validation of information communication can be critical during a crisis, this issue has to be tackled in each country and documented in the guidelines for iSAR+ platform to be efficient	
<b><u>Pre-requirements to adopt iSAR+</u></b> iSAR+ tools have to fit in the existing processes.	
<b><u>Confidence in the tools</u></b> PPDRs would have more confidence in translations of info given by foreign citizens if it is done by referenced citizens (who shouldn't be paid for that) or professional organizations => find "trustworthy" citizens and organizations that could be reference in iSAR+ platform	
<b>Group:</b>	<b>Business and Exploitation</b>



No relevant conclusions were made regarding this topic. Therefore the iSAR+ business and exploitation plans remain unchanged.	
<b>Group:</b>	<b>Recommendations for future showcases</b>
<b>Showcase Stakeholders (players)</b>	
It would be interesting that the Finnish showcase involves media.	
<b>Interviews to operational teams</b>	
In the Finnish showcases, more end-users should be present during the workshop.	
<b>Showcase preparations</b>	
PPDRs should be explained in early discussions about the showcase the purpose and goals of iSAR+ project	
<b>Network issues</b>	
Check before showcase the 3G network in all the places the players will be (check with different providers, OS...). But even if it seems fine, be prepared to have it working worse than expected during showcase!	
<b>Battery issues</b>	
Ask participants to come with smartphone full of charge (using the apps in 3G can be very energy consuming...).	
<b>Use of social media</b>	
Work on open social media to be more realistic (number of tweets) and in addition to Twitter, use Facebook if possible	
<b>Role of citizens</b>	
There should be more action for citizens	
<b>Communication between citizens and PPDRs</b>	
Have different groups of citizens using either Twitter or Permiloc but not both to compare	
<b>Roles of PPDRs</b>	
It would be interesting to have several roles for PPDRs	
<b>Tweets from PPDRs</b>	
There should be much more tweets from PPDRs	
<b>Observers</b>	
Before the beginning of showcase, explain to the observers:	
<ul style="list-style-type: none"> <li>- which role is played where</li> <li>- which organizations are playing, their roles in the showcase and precisely in the platform, the position of the players in their organizations</li> </ul>	



## Annex 3 – FI Showcase Workshop results

The following table presents the major conclusions that came up from the FI showcase workshop discussions, grouped as defined in paragraph 2.3 of the document D7.731 – iSAR+ Workshops.

<b>Group:</b>	<b>New Requirements</b>
No new requirements were identified in the FI showcase.	
<b>Group:</b>	<b>Requirements consolidation</b>
<b><u>D2.231 – Requirements</u></b>	
All requirements identified as those to be implemented in the prototype, were tested and validated by the showcase participants.	
<b><u>Visibility of PPDR posts on social media</u></b>	
Official information on social media is easily lost especially when the update flow is very fast.	
<b><u>Resources</u></b>	
Appointing recourses for the use of iSAR+ tools is a challenge. Therefore the tools must be easy and fast to use.	
<b>Group:</b>	<b>Goals and Schedule</b>
No relevant conclusions were made regarding this topic. Therefore the iSAR+ goals and schedule remain unchanged.	
<b>Group:</b>	<b>Adoption roadmap</b>
<b><u>Storage of data</u></b>	
National laws and regulations on the storage of data need to be complied when using tools such as iSAR+.	
<b><u>Involving end-user community and policy makers</u></b>	
Final event of iSAR+ could be targeted to possible customers, PPDR and policy makers.	
<b><u>Social media networks’ privacy regulations</u></b>	
Social media networks’ privacy regulations considering the monitoring and analyses of information in crisis situations should be further clarified. Information shared in commonly used social media networks (especially Facebook) should be utilized.	
<b>Group:</b>	<b>Business and Exploitation</b>
A business action plan about the exploitation of the platform after the project should be created. Separate building blocks of iSAR+ tool are interesting from the business perspective.	