KI-CoP WORKSHOP REPORT

1. Introduction

The 2nd KI-CoP workshop was held on June 14th, 2021. The workshop was performed online using the tool Google Meets. 12 KI-CoP members participated and 9 ENGAGE project members facilitated the workshop. At the beginning of the workshop the ENGAGE partners presented the project and the progress that were made within the last year. Then the planned exercise was explained and performed. The exercise consisted of two sessions in which the participants were shown a scenario and a list of tools that could be used to mitigate the scenarios. Participants were asked to explain how they would approach the scenarios and to evaluate the different solutions. The participants were divided into three heterogenous groups and each group solved the exercises in a dedicated breakout room. Afterwards they reported the results in the plenum. Google Jam Boards were used to record opinions and statements made by the participants. After completing both sessions, the participants were introduced to the work done regarding a Chat Bot Blueprint and they were asked to provide feedback on that topic.

2. Agenda

Time	Resp.	Content
Societal Resilience Hub – 2nd meeting		
09:00-09:10	DBL	Welcome & overview of the agenda
09:10-09:30	STF	ENGAGE introduction & what we have achieved so far • Contributions to societal resilience (ENS) • Existing solutions (TECNUN & TAU) • Catalogue (STF) Discussion and open questions
09:30-09:45	TECNUN	ENGAGE and the identified solutions
09:45-10:30	DBL & STF	Interactive session: *Pre-event phase* • Scenario presentation • Focus on the identification & selection of the solutions • The catalogue of solutions Discussion and open questions

10:30-10:40	*Break*	
10:40-11:25	DBL & STF	Interactive session: *During phase* • Scenario presentation • Focus on the identification & selection of the solutions • The catalogue of solutions Discussion and open questions
11:25-11:55	TAU	The chatbot
11:55-12:00	STF	WS wrap-up and future activities

3. Description of the Exercise

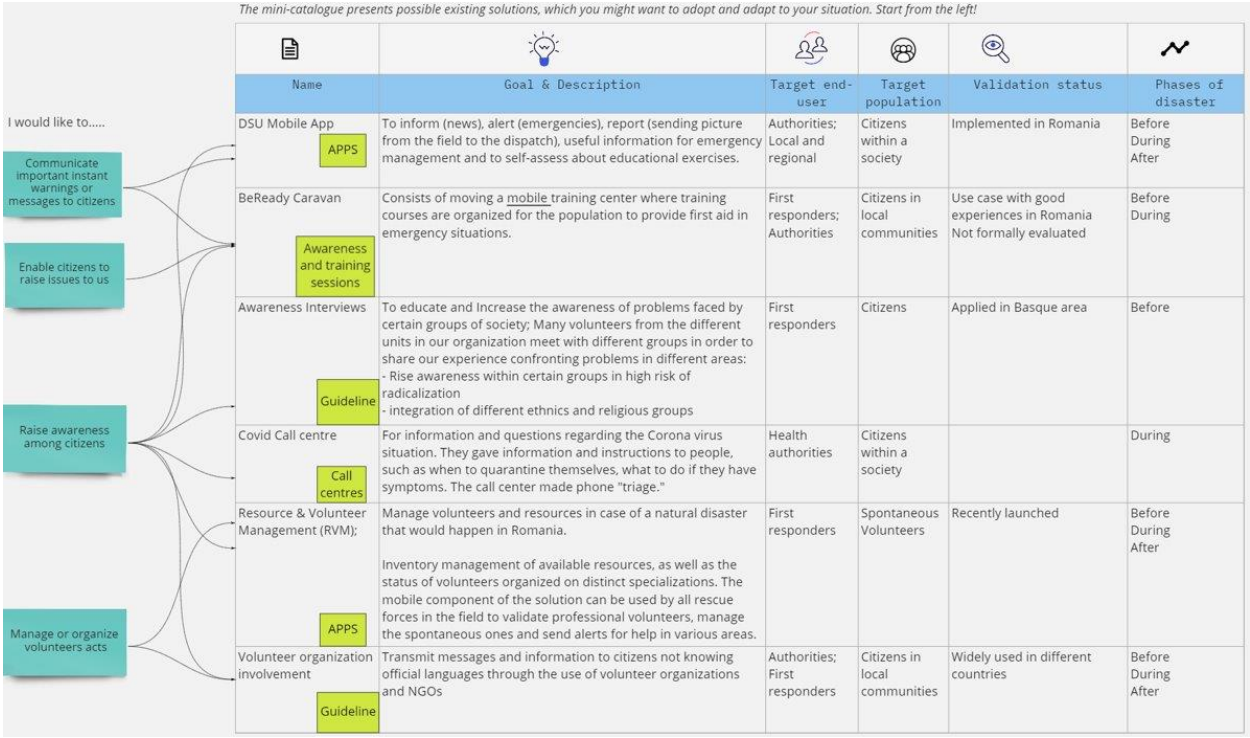
For the exercise two related scenarios were presented. The scenarios dealt with the COVID-19 crisis with a special focus on vaccination activities in hard-to-reach groups that show vaccination hesitancy. The two scenarios played in to points in time.

3.2 Pre-Event-Phase – Before the Start of the Vaccination Activities

Imagine, we are at an early stage of vaccination. You know that one community in your region will most likely be hard to reach. The people in that community have a migration background and are known to keep to themselves, meaning that the members of the community interact with each other but are not well integrated outside of the community and the rest of the region/country. The people in that community face known barriers that lead to hesitancy when it comes to vaccination. Many of them lack trust in the authorities and have religious beliefs that contradict vaccination intentions. On top of that it is likely that they are not familiar with the bureaucratic mechanisms that involve vaccinations, as there are language and literacy difficulties. Another problem is that there are misbeliefs and misinformation going around in the community. These create a fear of possible negative effects caused by the vaccine. You are not sure where these rumors originate from, but they create an extra layer of difficulty for your work.

It is important to achieve a high vaccination rate in this group as it otherwise bares the risk of cluster outbreaks.

It is important that you tackle this subject early, before a big gap and an unequal vaccination rate is prominent bearing a high risk of a cluster breakout. Therefore, **your goal is to prepare the society so that you achieve an even rate of vaccination**.



The mini-catalogue presents possible existing solutions, which you might want to adopt and adapt to your situation. Start from the left!

Name	Goal & Description	Target end-user	Target population	Validation status	Phases of disaster
DSU Mobile App (APPS)	To inform (news), alert (emergencies), report (sending picture from the field to the dispatch), useful information for emergency management and to self-assess about educational exercises.	Authorities; Local and regional	Citizens within a society	Implemented in Romania	Before During After
BeReady Caravan (Awareness and training sessions)	Consists of moving a mobile training center where training courses are organized for the population to provide first aid in emergency situations.	First responders; Authorities	Citizens in local communities	Use case with good experiences in Romania Not formally evaluated	Before During
Awareness Interviews (Guideline)	To educate and Increase the awareness of problems faced by certain groups of society; Many volunteers from the different units in our organization meet with different groups in order to share our experience confronting problems in different areas: - Rise awareness within certain groups in high risk of radicalization - integration of different ethnics and religious groups	First responders	Citizens	Applied in Basque area	Before
Covid Call centre (Call centres)	For information and questions regarding the Corona virus situation. They gave information and instructions to people, such as when to quarantine themselves, what to do if they have symptoms. The call center made phone "triage."	Health authorities	Citizens within a society		During
Resource & Volunteer Management (RVM); (APPS)	Manage volunteers and resources in case of a natural disaster that would happen in Romania. Inventory management of available resources, as well as the status of volunteers organized on distinct specializations. The mobile component of the solution can be used by all rescue forces in the field to validate professional volunteers, manage the spontaneous ones and send alerts for help in various areas.	First responders	Spontaneous Volunteers	Recently launched	Before During After
Volunteer organization involvement (Guideline)	Transmit messages and information to citizens not knowing official languages through the use of volunteer organizations and NGOs	Authorities; First responders	Citizens in local communities	Widely used in different countries	Before During After

Figure 1. Mini Catalogue of Solutions for the Pre-Event Phase Scenario. Taken from ENGAGE Deliverable 3.1.

<u>Questions:</u>
Involvement of citizens of the society:

1. What actions would you take in order to prevent the situation from occurring?
2. How do you want to be supported by the society?
3. Who can help you in your intent to get a high vaccination rate?

Select and adapt an existing solution that could fit your needs:

1. Which solution(s) do you pick, and why?
2. What type of information would you need to make a good decision?

3.2 Event-Phase – Social Disruption

Despite the preparatory work the situation developed into an unequal vaccination rate between the people from the community mentioned before and the rest of the region. Only 30% people that are 60+ and part of the community are vaccinated, compared to 75% of vaccinated people that are 60+ and live in the rest of the region. You want to increase the vaccination rate in the

community, but you are still faced with mistrust in the authorities and vaccines, language difficulties and the continuous spread of negative information about the vaccine.

On top of that you find yourself in an acute situation. Protests against vaccine passes issued by the government cumulated in a rise of criminality (including looting of shops and setting cars on fire). In a counteraction to this criminality spontaneous individuals and emergent groups are trying to stop the criminal activity.

Your goal is to handle the acute situation of criminal activities and to increase the vaccination rate in that region.

Figure 2. Mini Catalogue of Solutions for the Event Phase Scenario. Taken from ENGAGE Deliverable 3.1.

<u>Questions:</u>

Involvement of citizens of the society:

4. What actions would you take in order to prevent the situation from occurring?
5. How do you want to be supported by the society?
6. Who can help you in your intent to get a high vaccination rate?

Select and adapt an existing solution that could fit your needs:

3. Which solution(s) do you pick, and why?
4. What type of information would you need to make a good decision?

4. Results from the Exercise

The results give mainly input to the Initial Catalogue of Societal Resilience Solutions (Deliverable 3.1) and the creation of the Knowledge Platform (Deliverable 5.5). Three main topics were identified within the results:

1. Selection of solutions
2. Characterization of solutions
3. Structure of the catalogue of solutions

The results enlisted below are taken from the ENGAGE Deliverable 3.1 – Initial Catalogue of Societal Resilience Solutions[1].

Results provided regarding the **selection of solutions**:

- Selection is primarily done by comparing an application with the decision-maker's domain and application area, as well as relating to the question of validation. For example, one solution was deemed not transferrable due to differences in contextual factors.
- The decision-maker will want to make their own judgements of applicability, and should be given information to *support* the decision, not *make* the decision.
- The boundaries of citizen participation influences the choice of solutions. The more extreme an event is, and the more acute, the less citizen participation in the event itself is wanted. Nevertheless, the question of monitoring and having situational overview of volunteering is crucial

Results provided regarding the **characterization of solutions**:

- Help the user make a contextual comparison of where the solutions have been applied, and their own context. I.e. have a good context description on relevant aspects.
- Considering that where solutions have been applied as an important element, *use cases* of solutions are objects that needs attention in the characterisation
- The characterization should include:
    - Use cases – applications of a solution
    - Resource intensiveness
    - Cost/effectiveness
    - Impact/outcomes
    - Validation status (scientific validation, if possible, especially in the health domain)
    - Prerequisites (listing specific requirements for the solution to work well)

Results regarding the **structure of the catalogue of solutions**:

- The mini-catalogue was structured with using broad statements from a subject first person perspective. This was an attempt to simulate a flow into the catalogue based on needs of first responders & authorities.

[1] https://www.project-engage.eu/outcomes-results/deliverables/

- The feedback from the end-users was that the questions/statements was in line with a logical flow into the catalogue.
- A challenge is to balance on the one side the in-depth information, with the con of having to read a lot of information, and on the other side having shallow, basic information, with the con of not showing important documentation.

The following images show the direct input provided by the participants on Jam Boards created during the workshop.

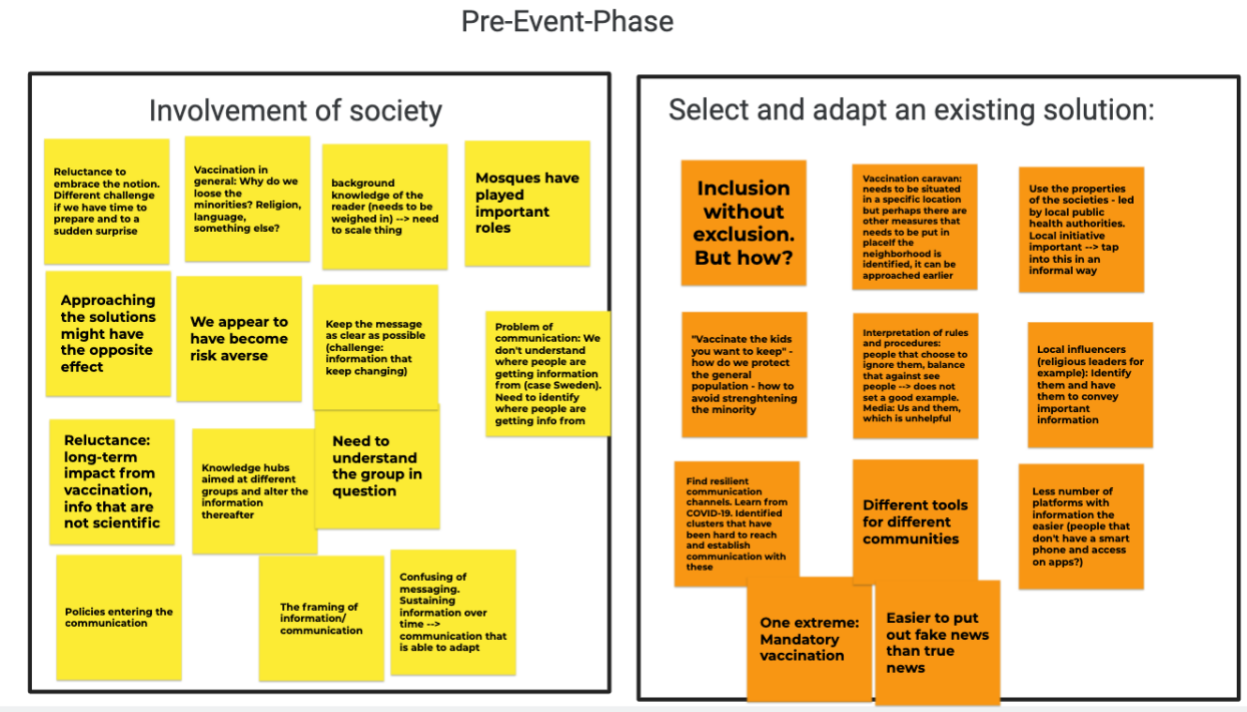


Figure 3. Jam Board; Pre-Event Phase; Group 1

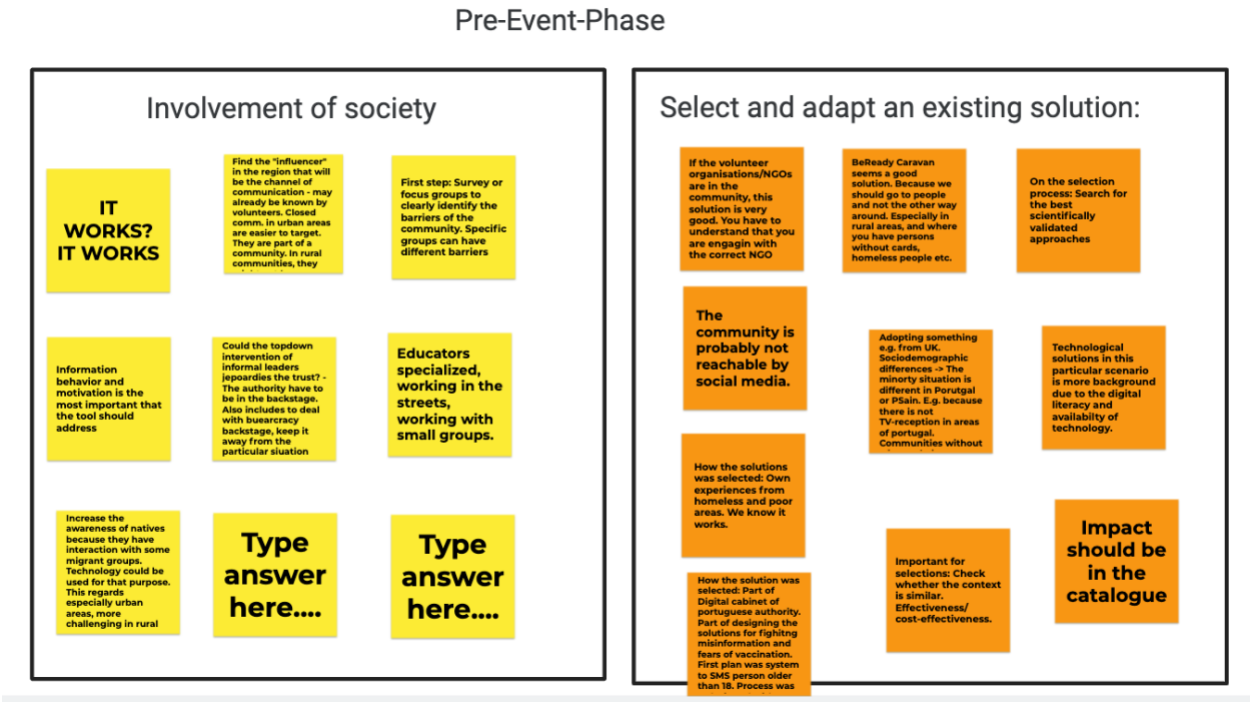


Figure 4. Jam Board; Pre-Event Phase; Group 2

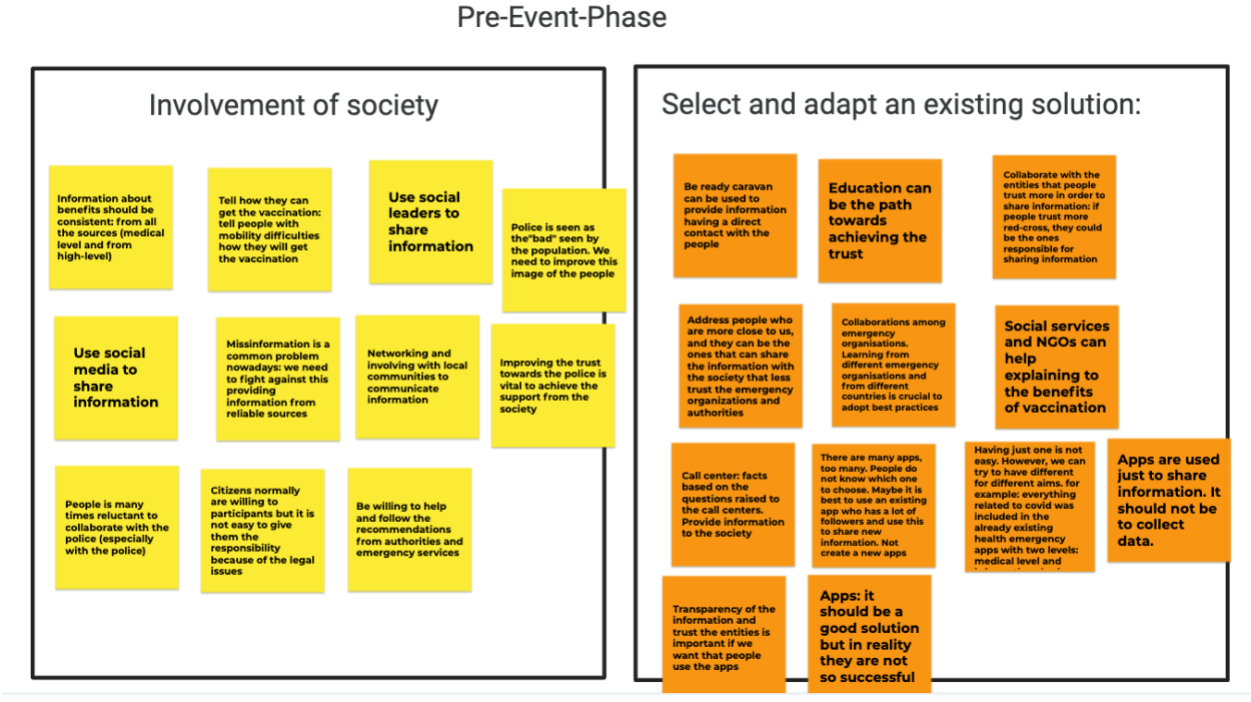


Figure 5. Jam Board; Pre-Event Phase; Group 3

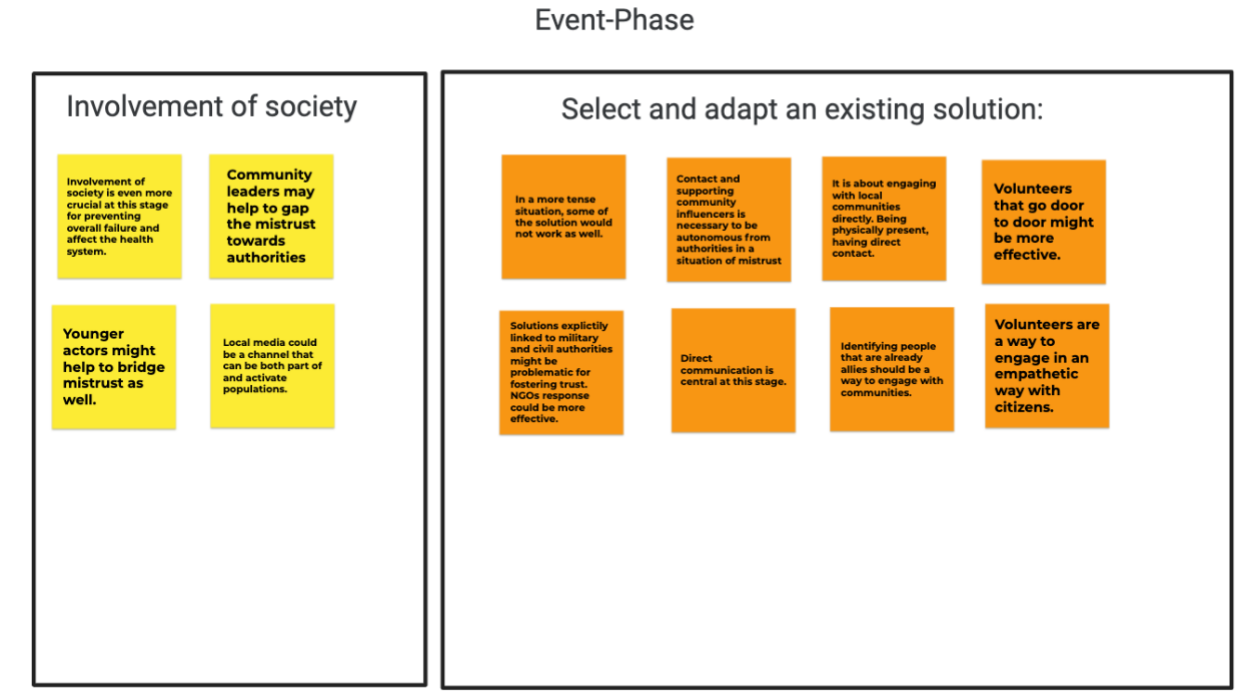


Figure 6. Jam Board; Event Phase; Group 1

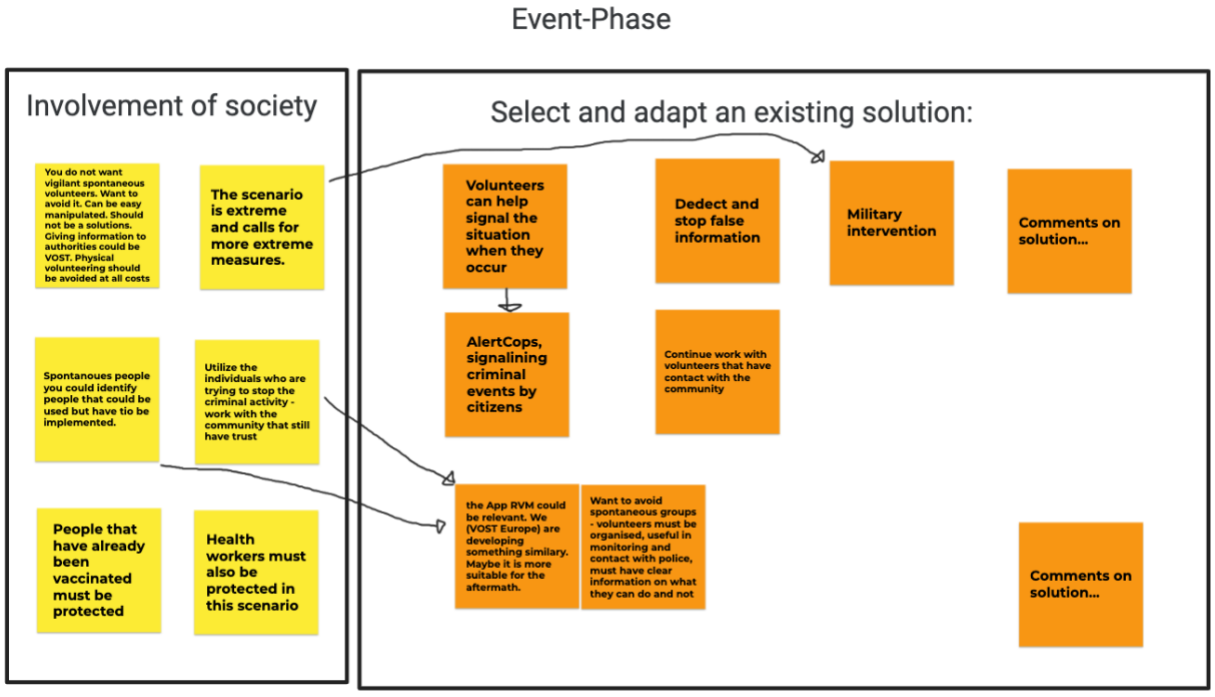


Figure 7. Jam Board; Event Phase; Group 2

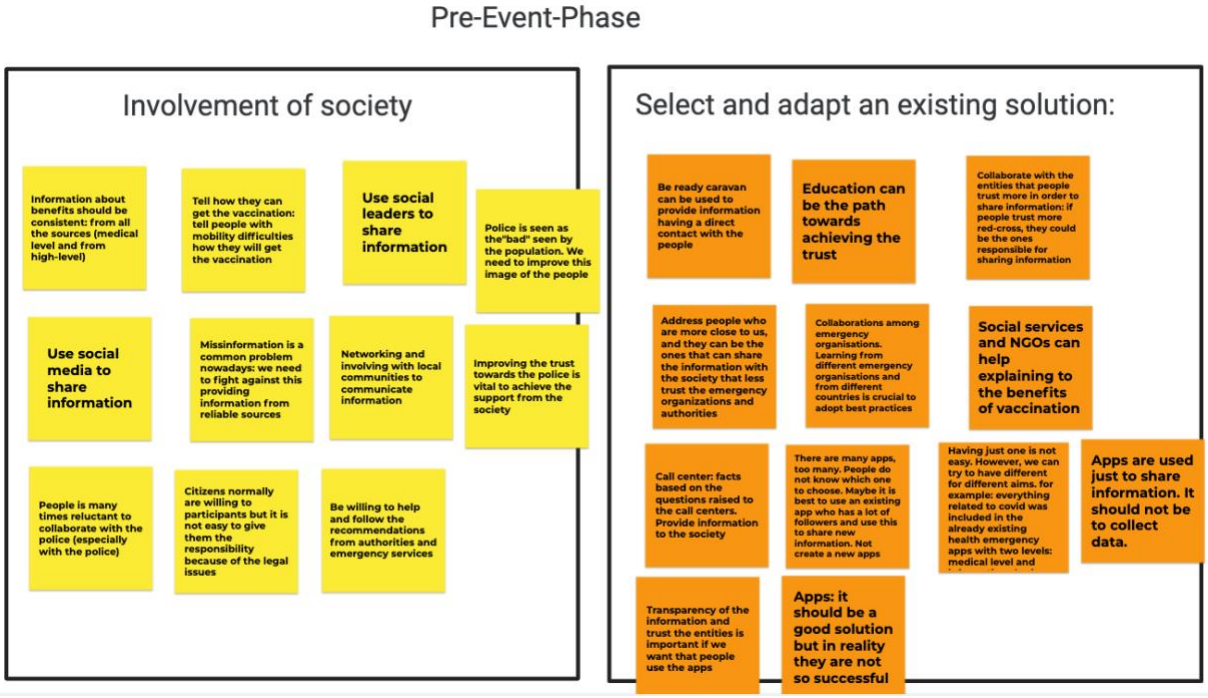


Figure 8. Jam Board; Event Phase; Group 3

5. Chat Bot Blueprint (TAU)

Introduction

Deliverable 3.2 aims at proposing new directions for the innovative use of Artificial Intelligence (AI) technology to improve societal resilience and citizens' engagement.

The characterization of the solution allows its potential implementation in different contexts, as well as its strengthening forms of resilience embedded culturally and socially in local contexts.

The scope of deliverable 3.2 is limited to:

- examining the hypothesis that: enhancing communication channels through AI can contribute to building societal resilience.
- examining whether AI can replace or temporarily augment some of the roles first responders play (e.g., providing information in call centres) in all phases of disasters and emergencies, decreasing the need for human assisted help.
- setting the guidelines, through a blueprint, to the designing process of an AI-chatbot for emergencies and disasters.

What are we looking for?

- Existing solutions (AI-enabled chatbots) and ML approaches
- Datasets that may serve the project's objectives
- Existing blueprints/technologies that can be relevant
- Relevant sources for information (partners, Ki-CoP, other)

Reviewing solutions

We will analyze existing AI-enabled chatbots, focusing on societal resilience. We will include only chatbots that deal with several dimensions of emergencies and disasters in any phase of the emergency cycle. The chatbot analysis will focus on the chatbot itself, additional documents and other relevant material that will be identified.

Reviewing datasets

Under the scope of D3.2, we will analyze possible datasets that can serve as sources for information to train AI-enabled chatbots related to societal resilience. A dataset can be any document or other sources that include information in patterns, including emergency call scenarios, transcribed conversations with call centers, emergency protocols and more.

Feedback indicated by the participants

The end-users that were present in the meeting expressed their understanding of the potential benefits of using AI-enabled Chatbot before and during adversities, most especially to manage loads of calls to information centers. Nonetheless, they also expressed concern that the public may not trust the information provided by the Chatbot, prefer to speak to a human being rather than to a bot, and that the integrity of the information relayed may be problematic. Furthermore, they themselves had some reservations concerning the ability to rely on a Chatbot to provide sensitive information, most especially in emergency events that are stressful.