

RiskPACC

INTEGRATING RISK PERCEPTION AND ACTION TO ENHANCE CIVIL
PROTECTION-CITIZEN INTERACTION

AWARENESS WORKSHOP REPORT 2

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ABOUT RISKPACC

Increasingly complex and interconnected risks globally highlight the need to enhance individual and collective disaster resilience. While there are initiatives to encourage citizen participation in creating a resilient society, these are typically fragmented, do not reach the most vulnerable members of the communities, and can result in unclear responsibilities for building disaster resilience.

New technologies can also support preparedness and response to disasters, however, there is limited understanding on how to implement them effectively. Awareness of risks and levels of preparedness across Europe remain low, with gaps between the risk perceptions and actions of citizens and between the risk perceptions of citizens and Civil Protection Authorities (CPAs).

The RiskPACC project seeks to further understand and close this Risk Perception Action Gap (RPAG). Through its dedicated co-creation approach, RiskPACC will facilitate interaction between citizens and CPAs to jointly identify their needs and develop potential procedural and technical solutions to build enhanced disaster resilience. RiskPACC will provide an understanding of disaster resilience from the perspective of citizens and CPAs, identifying resilience building initiatives and good practices led by both citizens (bottom-up) and CPAs (top-down). Based on this understanding, RiskPACC will facilitate collaboration between citizens, CPAs, Civil Society Organisations, researchers and developers through its seven (7) case studies, to jointly design and prototype novel solutions.

The “RiskPack” toolbox/package of solutions will include a framework and methodology to understand and close the RPAG; a repository of international best practice; and toolled solutions based on new forms of digital and community-centred data and associated training guidance. RiskPACC consortium comprised of CPAs, NGOs, associated organisations, researchers and technical experts will facilitate knowledge sharing and peer-learning to close the RPAG and build disaster resilience.

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Executive Summary

This deliverable D8.8 is a report from the 2nd RiskPACC Awareness Workshop, which was conducted on June 14th in Berlin, Germany. The Workshop '*Bridging the Risk Perception-Action Gap: tools and approaches to enhance Citizens and Civil Protection Authorities interaction*' was the second part of a series of four events, in which project partners, end users, academics and first responders participate and which serve to share project findings with a large scale of relevant stakeholders

Experts from within and from outside of the RiskPACC consortium were invited to the workshop. The core intention was to present the tools and approaches that the RiskPACC consortium developed to enhance the communication between citizens and Civil Protection Authorities to experts from all stakeholders in the field of disaster and risk management, and to receive their valuable feedback. The feedback received will be used to further advance the technological tools and finetune the approaches chosen in the next phase of RiskPACC, in which city representatives will test the solutions of the project.

The focus of RiskPACC has always been the close involvement of all stakeholders in the development, enhancement and application of any solutions that could potentially close the Risk Perception Action Gap. The Risk Awareness Workshops are a crucial part of this process, as they allow the RiskPACC partners to present to and receive feedback from some of the top experts in the fields, interested cities as well as members of the Advisory Board of RiskPACC. To get as much feedback as possible, the event was conducted in hybrid format.

The feedback collected during the workshops will now influence the testing of the RiskPACC solutions in the cities in WP6. It thus directly influences the Co-Creation approach that the project is built on.

Glossary and Acronyms

ACRONYM	DEFINITION
AR	Augmented Reality
CAFO	Czech Association of Fire Officers
CPA	Civil Protection Authority
CNVVF	Corpo Nazionale dei Vigili del Fuoco
Efus	European Forum for Urban Security
EOS	European Organisation for Security
ETH	Eidgenössische Technische Hochschule
FhG	Fraunhofer-Gesellschaft e.V.
Fraunhofer IML	Fraunhofer Institute for Material Flow and Logistics
Fraunhofer INT	Fraunhofer Institute for Technological Trend Analysis
HWR	Hochschule für Wirtschaft und Recht
IBZ	Intérieur Binnenlandse Zaken
ICCS	Institute of Communication and Computer Systems
I.S.A.R.	International Search-and-Rescue
ISCIA	Instituto Superior de Ciências da Informação e da Administração
ISPRA	Istituto Superiore per la Protezione e la Ricerca Ambientale
KEMEA	Kentro Meleton Asfaleias
MDA	Magen David Adom
STAM	Stam Srl
UCL	University College London
UIC	Union internationale des Chemins de fer
USTUTT	University of Stuttgart
VU	Vrije Universiteit
WP	Work Package

TABLE 1: GLOSSARY AND ACRONYMS

1 INTRODUCTION

1.1 Overview

The 2nd RiskPACC Awareness Workshop, titled *Bridging the Risk Perception-Action Gap: tools and approaches to enhance Citizens and Civil Protection Authorities interaction*, is the second of a series of four events to share project findings with a large scale of relevant stakeholders including end-users, solution providers and academics. These four Workshops are:

- 1st Awareness Workshop which took place on 27th June 2022 in Brussels, under main responsibility of EOS (see D8.7)
- 2nd Awareness Workshop which took place on 14th June 2022 in Berlin, under main responsibility of FhG (this report)
- 3rd Awareness Workshop to take place in December 2023 in Paris, under main responsibility of Efus
- Final Workshop to take place in July 2024 in Brussels, under main responsibility of EOS.

The main target of this 2nd RiskPACC Awareness Workshop was to present and discuss how the developed technological tools and conceptual approaches (i.e., non-technological solutions) can be used to enhance the interaction between citizens and civil protection authorities.

1.2 Structure of the deliverable

This deliverable includes the following chapters:

- **Chapter 2** provides a brief overview of the workshop itself and the management of the event.
- **Chapter 3** and **Chapter 4** summarize the morning and afternoon sessions of the event, respectively, and provide the main outcomes of all presentations and workshop sessions.
- **Chapter 5** briefly presents the conclusions of the workshop.
- **Chapter 6** finally provides various annexes to the workshop, such as the participant lists or the registration process.

2 RISKPACC 2nd AWARENESS WORKSHOP: AN OVERVIEW

The workshop took place from 9:30h-16:00h CEST on 14th June 2023 at the Fraunhofer Forum in Berlin (+ online). The morning session was conducted in hybrid format, and the afternoon session was conducted with in-person participants only, because it comprised group works with technical tool testing. For the full agenda see → Annex 6.5.

2.1 Registration and Attendance

The invitation to the event was shared and advertised via e-mail, LinkedIn, Twitter, and in presentations at other conferences. The workshop registration process started one month before the event. RiskPACC's communication and dissemination leader EOS used EUSurvey for the registration and provision of relevant information on the event (see → Annex 6.1). One week before the workshop, the final agenda was shared with the registered participants.

Forty-eight (48) persons participated in the workshop, with twenty-seven (27) in-person attendees and twenty-one (21) online participants. According to the KPIs defined in the Grant Agreement (see Table 2), this can be considered to be 'Good'.

Dissemination KPIs	Poor	Good	Excellent
Number of Participants	Less than 40	Between 40 and 60	More than 60

TABLE 2: WORKSHOP'S KPIs (RISKPACC GRANT AGREEMENT, P. 38)

The participants represented industry, developers, end-users, first responders, research, national & international institutions (see Figure 1). They include members of the RiskPACC consortium, Advisory Board members, representatives of Horizon 2020 sister projects (DRS01), and representatives of the project external cities and regions that are about to implement and test the RiskPACC solutions (see Figure 2 for project internal and external – incl. sister projects' – participation).

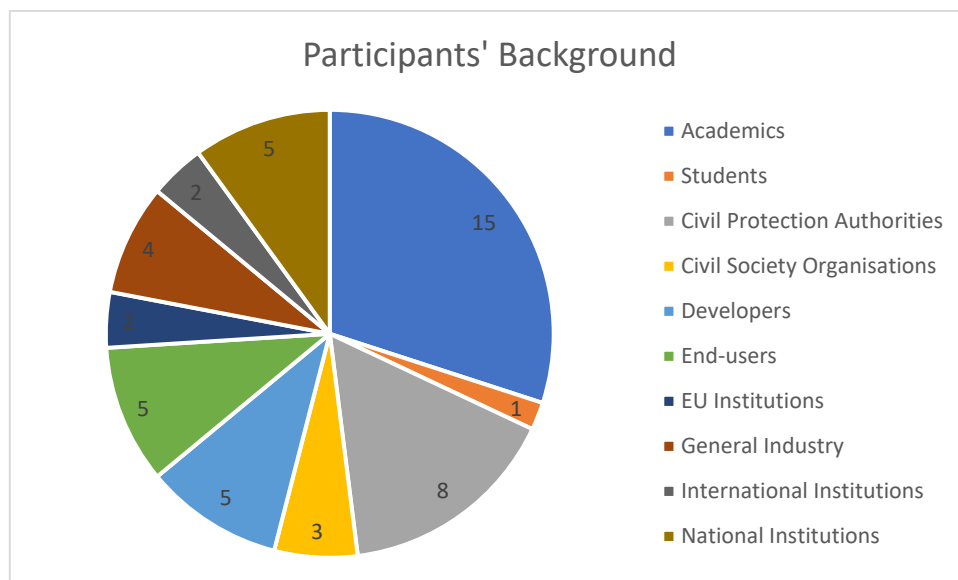


FIGURE 1: PARTICIPANTS' BACKGROUND

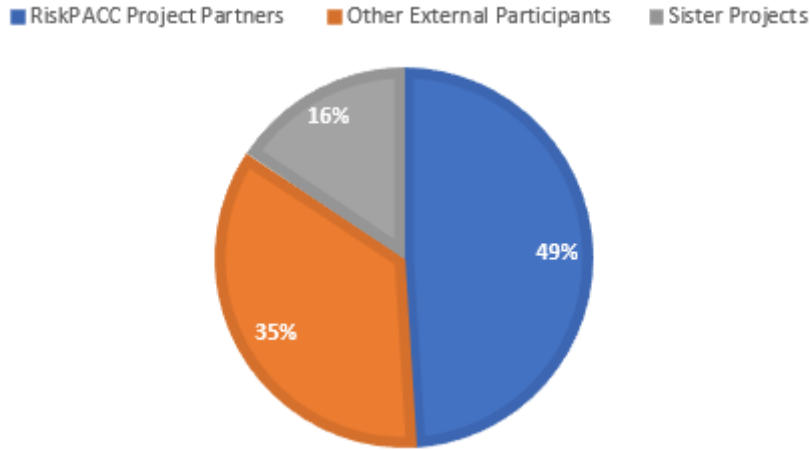


FIGURE 2: INTERNAL AND EXTERNAL PARTICIPATION

The participants were located in 12 different countries as presented in Figure 3.

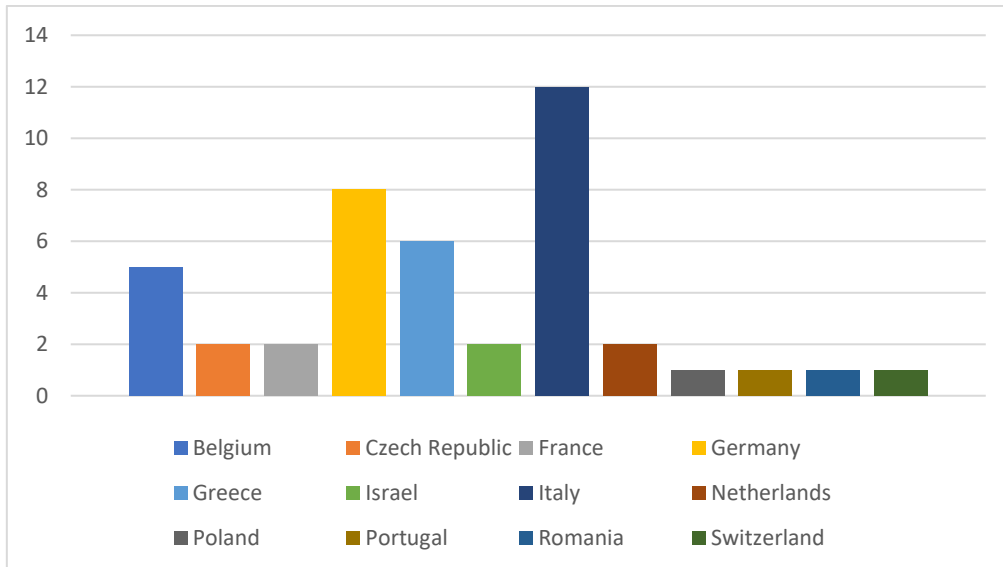


FIGURE 3: RISKPACC 2ND AWARENESS WORKSHOP PARTICIPANTS' COUNTRIES OF ORIGIN

For further details regarding the attendees, please refer to → Annex 6.3 and → Annex 6.4, which list the in-person and online participants, respectively. For GDPR Compliance, the name and surname of the participants have been anonymised.

2.2 Scope and Structure of the Workshop

While the main goal of the event was to disseminate results, feedback was gathered from the audience as well regarding all of the presented contents, and especially through an interactive session on technological tools. The contents of the 2nd Awareness Workshop addressed the current main achievements in the project: Lab Phase II and its co-creation methodology, which was concluded in March/April 2023, the technological tool development, and the first exchange

with project external cities and regions, which will implement and test the RiskPACC solutions in the third year of RiskPACC.

Following the registration and welcome, a short overview was given on the project and its current status by the coordinator from Fraunhofer INT. Efus, leader of the respective Work Package (WP), introduced RiskPACC's peer learning exchange activities with the associated cities and regions. This was followed by an introduction to the cities/regions that were represented in the workshop, and their respective interest in RiskPACC. UCL, the partner leading the "Lab Phase II" in RiskPACC, presented "Risk and uncertainty communication: what works?" – a topic inspired by the Lab Phase II workshops. Then, the co-creation workshop process, which was developed for RiskPACC's Lab Phase I and updated for Lab Phase II, was presented by the responsible partner USTUTT. This focus on conceptual and procedural solutions was followed by an overview on the technological tools developed by the technological partners CS, ICCS, STAM, and UT.

The afternoon session, which was only open for the in-person participants, comprised two rounds of group work. The participants were split into two groups, testing the "Hermes" tool (STAM), and the "Aeolian AR mobile application" (ICCS), which were both developed within RiskPACC. A similar testing of the other technological tools developed in RiskPACC is foreseen for the 3rd Awareness Workshop. "Hermes" is a social network-like platform in which users can communicate and share information with each other. The "Aeolian" app is an augmented reality tool that allows users to interact with CPAs via different functionalities, as further detailed below.

For the complete agenda of the event, please refer to → Annex 6.5. The contents of each session will be presented in more detail in → Chapter 3.

As part of the interactive format of the workshop, participants were asked to provide feedback to the presentations and sessions via an online questionnaire. Summaries of feedback related to dedicated questions are included in the respective sub-chapters of Chapter 3. Full answers to open questions can be found in → Annex 6.6.

3 MORNING SESSION

3.1 RiskPACC Overview

The Project Coordinator Maïke Vollmer (FhG) provided a brief overview of the RiskPACC project and presented the status quo of the project. In particular, she introduced the core concept of the project – the risk perception action gap (RPAG) – and how RiskPACC has contributed to understanding this phenomenon, as well as to closing the existing gap. She further highlighted that the tool development processes within RiskPACC (WP5) have just been concluded, which allowed the workshop participants to test the tools in one of the parallel afternoon sessions. She concluded with an overview on the status of the project, and referred to the upcoming transfer of developed solutions to new environments, i.e. associated cities and regions, as introduced in the following session (see Figure 4).



RiskPACC – where are we?

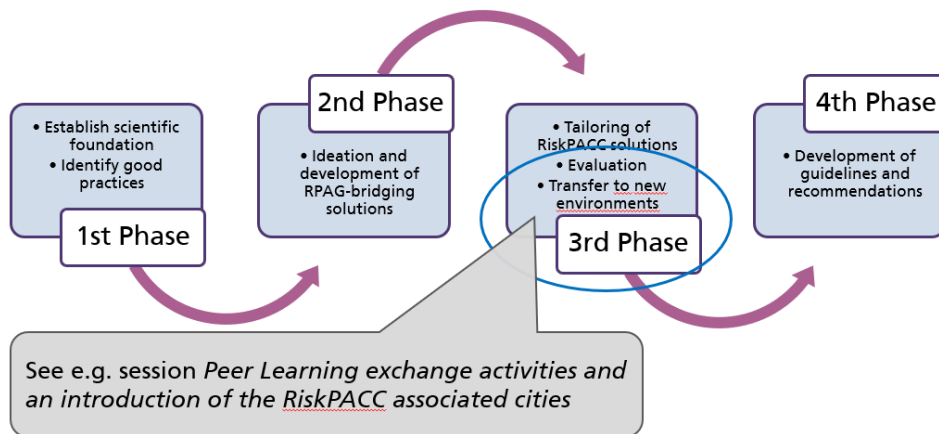


FIGURE 4: STATUS REPORT FOR RISKPACC

3.2 Peer Learning exchange activities and an introduction of the RiskPACC associated cities

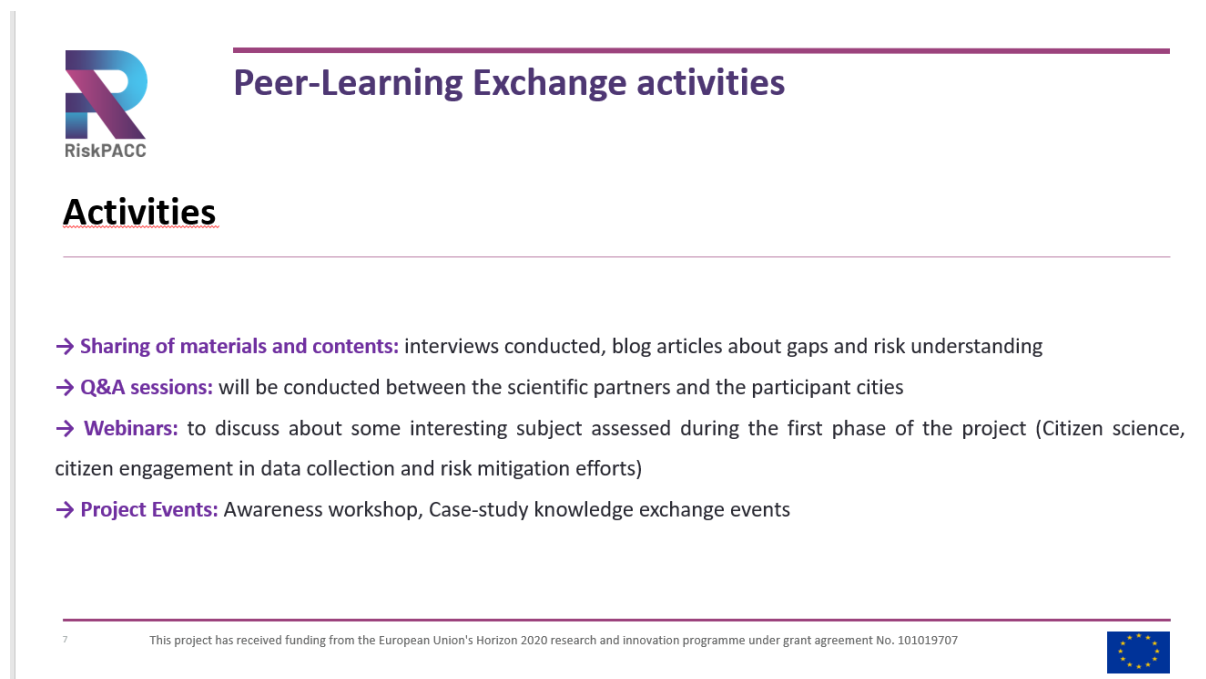
The workshop featured a dedicated session on Peer Learning Exchange Activities, which also provided an opportunity to introduce the associated cities to the project and its partners. Active participation was observed from Gdansk, Poland; Heidelberg, Germany; and Unione della Romagna Faentina, Italy. The aim of this session was to foster collaborative learning and facilitate the sharing of experiences, challenges, and best practices related to risk management and climate change adaptation. Prior to the cities' presentations on the RiskPACC project, Efus provided an overview of the peer learning exchange's purpose, outlining the planned activities (see Figure 5) and highlighting the benefits for the cities.

In addition to the cities represented in the workshop, the cities Karlsruhe, Setubal, and the Province of Liège were acknowledged as associated cities/regions of the project. Although they were unable to participate in this specific workshop, their inclusion in the project was

emphasized. These cities will play a crucial role in the upcoming phases, particularly in testing technological solutions and tools.

The session on Peer Learning Exchange activities and introduction of associated cities and regions formed an integral part of the workshop, enabling the cities to engage in meaningful interactions and knowledge sharing. This session provided a platform for cities to showcase their initiatives, exchange ideas, and gain valuable insights from one another. The collaborative environment fostered a sense of ownership and empowerment among the cities, placing them at the centre of the knowledge sharing process.

Participants were asked to provide feedback on the alignment of the cities' presentations with the objectives and focus of the RiskPACC project. The feedback received (see → Annex 6.6) indicated a high level of satisfaction with the majority of participants finding the presentations informative, relevant, and in line with the project's objectives. The cities' profiles effectively demonstrated their unique risks, vulnerabilities, and tailored adaptation strategies, contributing to a comprehensive understanding of the challenges faced.



The slide features the RiskPACC logo on the left, followed by the title 'Peer-Learning Exchange activities' in a large, bold, purple font. Below the title is a horizontal line, and then the word 'Activities' in a bold, black font. A list of activities follows, each preceded by a purple arrow. At the bottom left, there is a small number '7' and a line of fine print. At the bottom right, there is a small European Union flag.

Peer-Learning Exchange activities

Activities

- **Sharing of materials and contents:** interviews conducted, blog articles about gaps and risk understanding
- **Q&A sessions:** will be conducted between the scientific partners and the participant cities
- **Webinars:** to discuss about some interesting subject assessed during the first phase of the project (Citizen science, citizen engagement in data collection and risk mitigation efforts)
- **Project Events:** Awareness workshop, Case-study knowledge exchange events

7 This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101019707




FIGURE 5: PEER-LEARNING EXCHANGE ACTIVITIES

The participants did further believe that the selected cities do well align with the objectives of the project, as the feedback provided in the online questionnaire shows (see Figure 6).

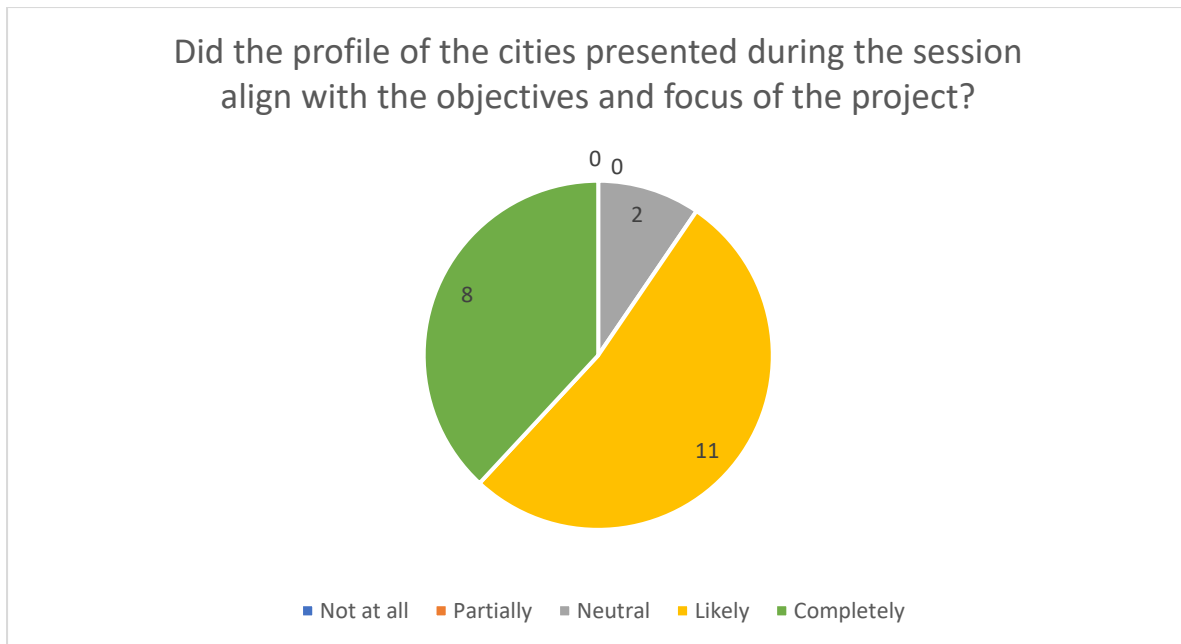


FIGURE 6: QUESTIONNAIRE FEEDBACK 1

Moving forward, the insights gained from the peer learning exchange activities and the cities' presentations will serve as valuable resources for the project's subsequent phases. The inclusion of Karlsruhe, Setubal, and the Province of Liège in the associated cities further emphasizes the project's commitment to comprehensive risk management and climate change adaptation.

3.3 Risk and uncertainty communication: what works?

Sarah Dryhurst (UCL) focused on methods to close the RPAG, the main target of RiskPACC as a project. To tackle the closure of the gap, she argued, communication is key. A key question is whether communication is informing or persuading and the importance for the sender of communication to be self-aware of its choice between the two.

In the following, the presentation focused on the term risk itself, which often is represented by sheer numbers in academia and among civil protection agencies alike. It is noted that often, risk is more a subjective feeling than a numeric, static, and objective truth.

With a number of simple experiments, the difference between fast experimental thinking on one hand, and slow analytical thinking on the other hand was demonstrated. It furthermore was shown how impressions we get by fast thinking, such as direct experiences, which often dictates our perception of risk. Slow thinking impressions, such as education, should rationally be more indicative of risks.

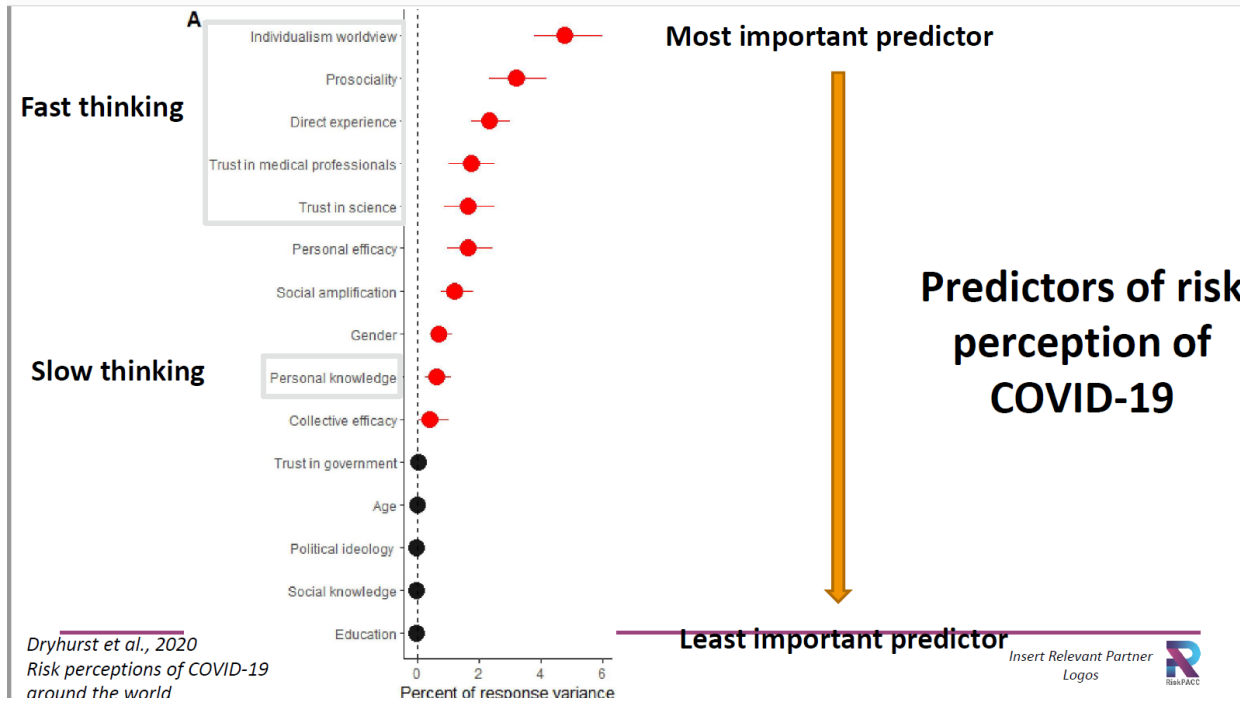


FIGURE 7: PREDICTORS OF RISK PERCEPTION

Finally, it was presented how the sheer format of numbers can influence the perception of the associated risks. Not less, context is relevant for numbers to influence the perception of the recipient of such numbers. A number of examples were provided to demonstrate how missing contexts and badly chosen formats lead the recipient to vastly misjudge risks. The presentation, subsequently, concluded by emphasizing the importance of explaining any uncertainties in as much detail as possible.

3.4 RiskPACC’s Co-Creation Workshop Process

Next up, the session “RiskPACC’s Co-Creation Workshop Process” was presented. This session was purposely targeted at the project-external participants, such as the observer cities’ representatives, for example. The aim was to give a short introduction to external partners about the co-creation workshop process (see Figure 8), to familiarise them with the concept so that they can have a mitigated entry-level to conduct a workshop by themselves in the future.

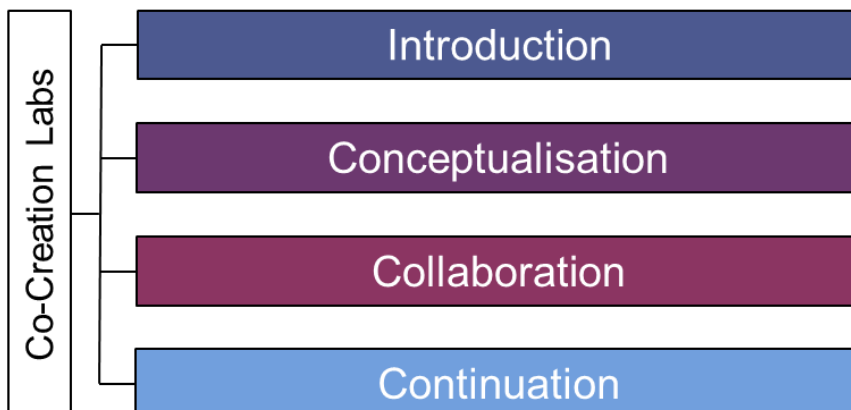


FIGURE 8: OVERVIEW ON RISKPACC'S CO-CREATION WORKSHOP WITH FOUR PHASES.

During the presentation, special emphasis was put on the link between each of the four workshop phases to the co-creation concept they are based on. For each of the four phases, the co-creation aspects are listed in Table 2.

Phase	Co-Creation Aspect
Introduction	The workshop facilitators – case study partners, researchers, technology providers, representatives from local organisations, e.g. – will work collaboratively on the scope and topic of the co-creation workshop.
Conceptualisation	The workshop facilitators will pick and collectively conceptualise one of the co-creation methodologies , such as (focus) group interviews, storyboard user stories, or activities on participatory mapping or risk communication processes.
Collaboration	The workshop participants will collaborate on the chosen topic and chosen co-creation activity in sub-groups – one of the activities tailored and explained in the conceptualisation phase. For working with technological solutions, this can also be called co-design, co-development, or participative technology development.
Continuation	The workshop facilitators will ensure that there is continuation and implementation of the co-creation workshop results , for example by helping the participants stay connected to ensure sustainable trust ties between citizens and CPAs.

TABLE 3: CO-CREATION ASPECTS IN RISKPACC'S WORKSHOP PROCESS.

Afterwards, the checklists for the preparation and conduction of a co-creation workshop following the RiskPACC process have been presented in detail (see → D3.4). By giving these step-by-step guides, the presenters intended to help the external participants understand how such a workshop is organised, and raise awareness and interest to read the Lab Methodology deliverable (D3.4) once back at work. To make the process memorable, and mitigate the effort needed to get their hands on the document, a physical brochure with an overview and a QR code to download the deliverable was handed out on site.

Again, the participants in the workshop had the opportunity to provide feedback to the RiskPACC team via an online questionnaire. Asked “*Which field of expertise, type of hazard, or organisational focus would you like to apply RiskPACC's Co-Creation Workshop Process to?*”, they named a vast range of different, usually local, hazards ranging from natural hazards, e.g. floods and earthquakes, to energy blackouts. All full answers can be found in → Annex 6.6.

As Figure 9 shows, the presentation and the disseminated knowledge about co-creation did resonate well with the participants. The vast majority does now feel able to conduct co-creation workshop themselves.

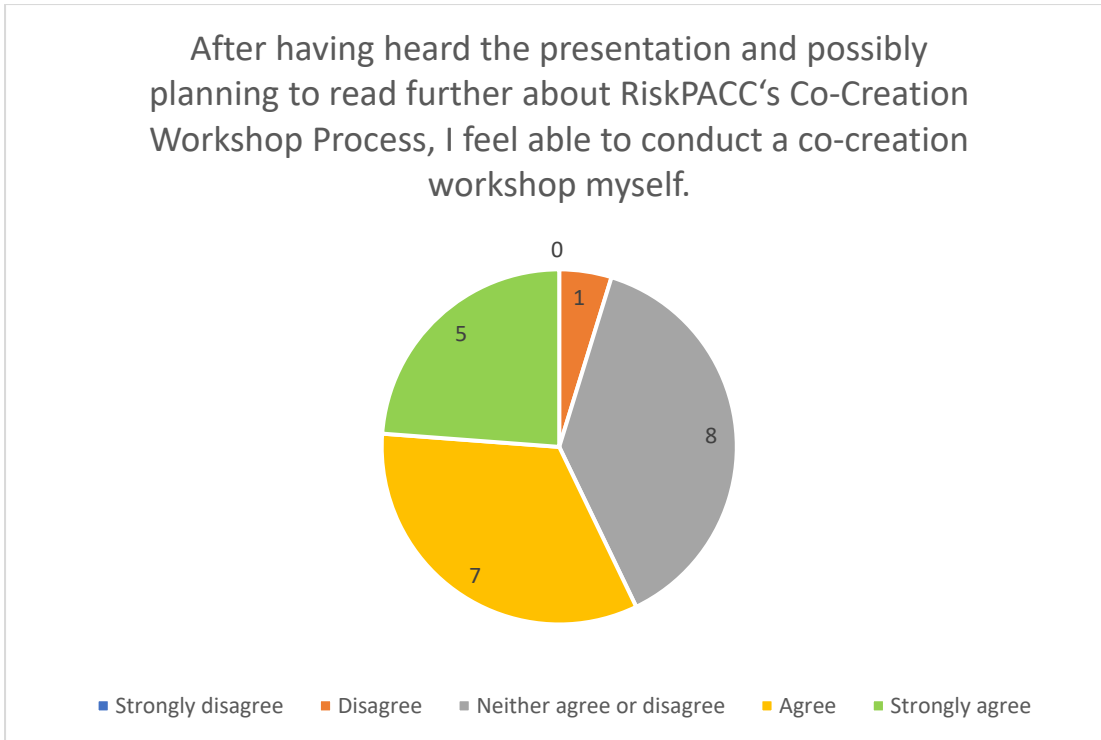


FIGURE 9: QUESTIONNAIRE FEEDBACK 2

3.5 RiskPACC technological solutions based on crowdsourcing and VGI to bridge the Risk Perception Action Gap

During this session, the results of the technological developments undertaken in RiskPACC's WP5 were showcased to the audience. Pietro De Vito, Project Manager for STAM and WP5 leader, delivered a comprehensive presentation on the project's activities in developing technological solutions. The project aimed to develop solutions by building on existing tools from STAM, CS, ICCS, and UT, while utilizing VGI and crowd-sourcing techniques to reduce the RPAG and facilitate communication between citizens and CPAs. The co-creation approach was emphasized as a key factor that allowed stakeholders' involvement in the development of the RiskPACC toolkit, ensuring that user needs were incorporated from the outset.

During the second Awareness Workshop, the spotlight was on two specific technological solutions within RiskPACC: HERMES and the Aeolian App, developed by STAM and ICCS, respectively. However, the other tools, namely PublicSonar by CrowdSense and MappingDamage and ThermalComfort by the University of Twente, were also introduced during the event.



FIGURE 10: CHRYSOULA PAPATHANASIOU (ICCS) AND PIETRO DE VITO (STAM) PRESENTING THE ACTIVITIES

HERMES, a social network-like platform designed to create communities and facilitate information sharing in a common space, was presented in detail by Pietro De Vito. The evolution of HERMES through the co-creation approach was elaborated upon, starting from its background to its adaptation for RiskPACC's context, where effective communication is paramount for mitigating the risks posed by the addressed hazards. HERMES was developed by the Open Innovation Platform of STAM, which is a solution that aims to facilitate the creation of new collaboration opportunities between its members in the context of the European and National research. RiskPACC has been the opportunity to adapt this solution to a new context, disaster and risk management, where communication is absolutely crucial to mitigate the risks due to the hazards addressed in the project (see Figure 11).

Throughout the development phase, several meetings and workshops were organised to introduce HERMES's functionalities to stakeholders. Based on the user needs identified in the beginning of the project, mock-ups and storyboard user stories were created, offering participants a tangible representation of the envisioned final product. This approach proved valuable in gathering early feedback and comments, which were promptly integrated into the development phase to enhance the tool's effectiveness.

Pietro De Vito concluded the presentation by showcasing the final form of HERMES, with a focus on its main implemented functionalities, including the messaging system, good practice repository, and post creation and sharing capabilities. All the information related to the tool can be found in the related deliverable → D5.1.

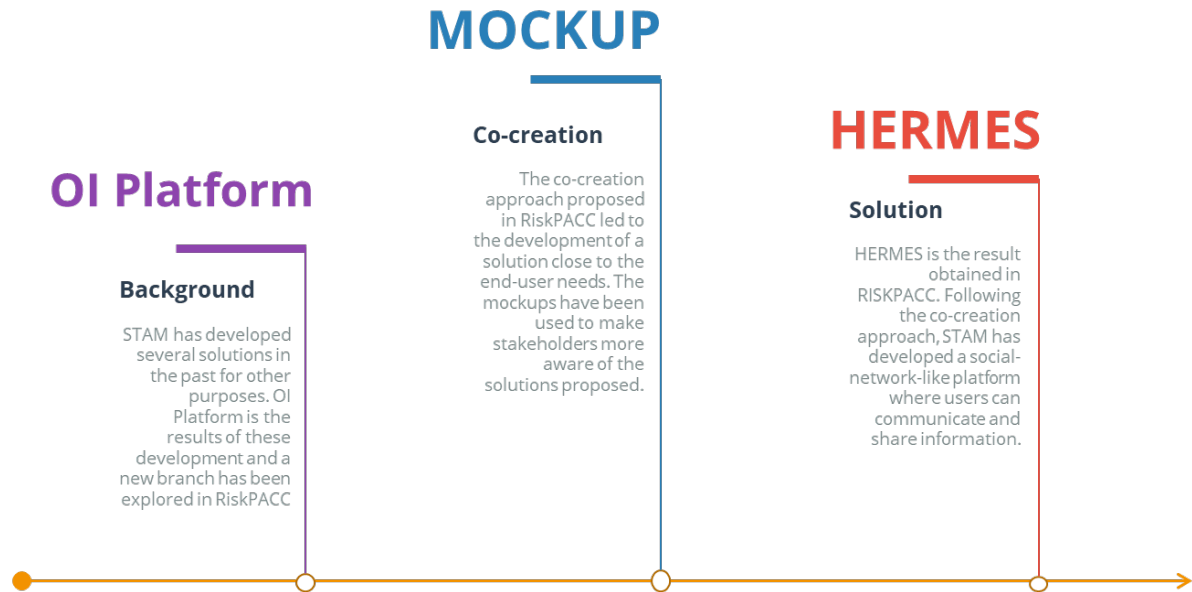


FIGURE 11: HERMES STORYLINE

The second technological solution that was presented in more detail during the second Awareness Workshop was the Aeolian AR mobile application, developed by ICCS. After an initial presentation of the aim and objectives of the Aeolian application, a brief overview of the evolution of the application, from its early stages at the beginning of the RiskPACC project to its current almost final version, was presented.

In particular, for Phase A, which concerned the period from the beginning of the project until the completion of the first round of workshops with case studies (May 2022), mock-up screens of the envisioned application were presented during workshops and discussed with attendees aiming to support a co-creation approach for the development of the application. By the end of Phase B (February 2023), the core functionalities of the application were already decided and the Beta release of the application (Iteration I) was available to case study workshop attendees for initial testing. The application was available for downloading and installation via scanning a QR code. The already defined core functionalities were further refined and bugs were identified and corrected by Phase C of the development of the Aeolian application (April 2023). The application was available for downloading and installation at the *Google Play Store*. Relevant print screens and photos for each development Phase of the Aeolian app were presented during the second Awareness Workshop.

After the short presentation of the evolution of Aeolian AR mobile app, Chrysoula Papathanasiou presented an overview of the core functionalities of the application, aiming to familiarise the attendees of the second Awareness Workshop with this technological tool. Additional information on the tool is available in → D5.1.

4 THE AFTERNOON SESSION

4.1 Working Groups Parallel Sessions: Testing selected technological solutions – the Hermes and Aeolian AR mobile app

The afternoon session was organised in two round tables in which the participants had the opportunity to have a first-hand look to the Aeolian App and Hermes tool. Pietro De Vito (STAM) and Chrysoula Papathanasiou (ICCS) led the discussions. After half the time, the participants moved to the other table.

HERMES round table: During the session, participants were encouraged to register and log in to HERMES, providing necessary information to customise their profiles and access relevant content. They were given the option to join the "Berlin Workshop" community, specifically created for the occasion. Pietro De Vito guided the participants through the tool's various sections, encouraging them to explore functionalities such as post creation and the messaging system. Valuable feedback and questions were raised, with some of the main points addressed as follows (further comments are reported in → Annex 6.6):

- The post creation and publication are free for all users. However, concerns were raised about the potential risk of users posting false or dangerous information. The decision to allow open post publication was made based on the limited resources of the CPAs responsible for HERMES administration. It also serves the project's purpose of quick testing and feedback gathering. Nonetheless, administrators, such as CPAs, have the authority to delete any posts that violate community standards or contain harmful information.
- The messaging system is designed to allow users to send messages directly to the administrator (e.g., CPAs) who can respond to citizen requests and inquiries.
- HERMES repositories are managed manually by administrators, and there is no automatic system for updating files. Future improvements may include integrating cross-platform-sharing functions to populate multiple spaces with the same content, expanding the tool's reach on platforms like *Facebook*, *Twitter (X)*, and *YouTube*.

Overall, the round table received positive feedback, with participants expressing their appreciation for the tool's potential. However, some critical aspects were highlighted, including the need for dedicated resources, such as a communication department, to maintain HERMES and filter information to keep the material up-to-date. Additionally, it was emphasized that offering HERMES in local languages is useful, while at the moment only Italian and English are available by system (other languages are available thanks to *Google Translate* add-on implemented in the browser). Finally, to give access to more users, it is really important to develop solutions also for other devices (e.g. smartphones) that would enable a broader diffusion. These insights will contribute to refining and enhancing HERMES in the future, making it more effective and accessible for disaster risk management stakeholders and the broader community.



FIGURE 12: HERMES ROUND TABLE

Aeolian application round table: Parallel to the session for the HERMES application, the session for the Aeolian application was running as well. Participants in the working group were encouraged to download the application on their mobile devices from the *Google Play Store*. For backup purposes, and also given that the application can be downloaded and installed only in *Android* mobile phones, Chrysoula Papathanasiou had four additional spare devices, where the application was pre-installed. These devices were provided to workshop attendees who, for any reason, did not manage to download and/or install the application to their mobiles (mainly because not owning an *Android* mobile phone).

Then the attendees were encouraged to navigate to the basic functionalities and familiarise with the application. An AR Campaign for a historic flood event that was supposed to have affected the area that lays within a radius of 200m around the venue of the workshop had been prepared beforehand, imported in the application via the CMS of the tool and was eventually accessible for testing to the application users during the workshop. Attendees tested all the functionalities of the Aeolian application, including inter alia the chatting functionality (as citizens) with CPAs, AR Campaigns, disaster training and hazard events.

Useful feedback from the users of the Aeolian AR mobile application was received both during the workshop (feedback directly provided from the users to Chrysoula Papathanasiou) and after the completion of the workshop (feedback received from properly designed questionnaires that were filled-in online by the attendees). Co-creation as an approach for the development of Aeolian application keeps being a priority for this tool, as this feedback will be

merged with the feedback received from the final round of case study workshops and will support the final refinement of the application so as to reach its final version.



FIGURE 13: AEOLIAN APPLICATION ROUND TABLE

As the answers to the online questionnaire, which are presented in full in → Annex 6.6, show, the HERMES and Aeolian apps have been assessed positively by the participants. They found them useful for citizens and, in particular, for CPAs. The developers of the apps received important feedback on aspects that could be added or changed, such as multilingual functionalities, which were desired by some of the participants.

4.2 Wrap Up, Lessons Learnt and Workshop Conclusions

In the final session, Project Coordinator Maike Vollmer (FhG) shortly wrapped up the day and summarised the main outcomes.

A few participants took the opportunity to thank the organisers of the workshop and the presenters, but also highlight the positive development of RiskPACC as a project and expressing their respect about the achievements made.

One participant asked how the results of the workshops were used. The main answer to that question is this very report, which documents the outcomes and will be made available to the participants. Within RiskPACC, the results of the workshop will be used in the upcoming phases, in which the developed tools will be tested in cities and regions across Europe. They will also heavily influence the next RiskPACC Awareness Workshop, to be held in Paris in December 2023.

5 CONCLUSION

The main target of the workshop was to present and discuss how technological tools and conceptual approaches developed in RiskPACC can be used to enhance the interaction between citizens and civil protection authorities. This target could be met, largely thanks to the engagement of the participants at the workshop.

The RiskPACC partners that presented during the workshop were able to disseminate the technological tools and conceptual approaches developed within the RiskPACC project to tech companies, CPAs, and researchers outside of the consortium and receive their immediate feedback on the day, as well as their written feedback in the online questionnaires circulated to all participants. Both provided valuable new learnings to the owners of the tools and the innovators of the non-technological approaches, which will be used in the further refinement of both.

Most importantly, the participants considered the event as a whole 'Excellent' or at least 'Very Good' (Figure 14). This is testimony for the success of the event, for presenters and facilitators as much as for the participants in the workshop.

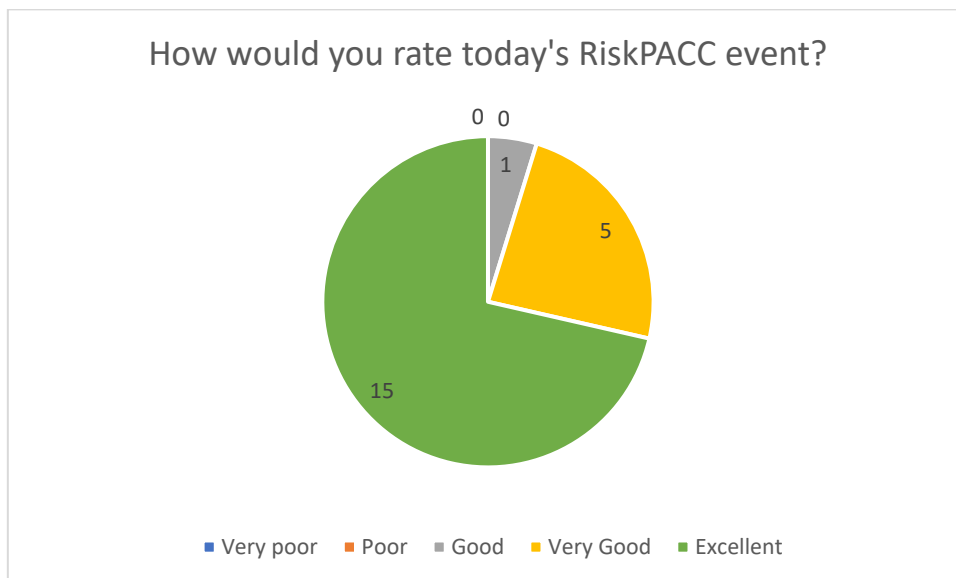


FIGURE 14: QUESTIONNAIRE FEEDBACK 3

The series of events this workshop was part of will continue with the 3rd RiskPACC Awareness Workshop in Paris, France (December 2023), which will focus on the two remaining technological tools developed within RiskPACC, the testing of the tools and approaches in cities of the European Forum for Urban Security, as well as the RiskPACC platform and the repository, which is part of it.

6 ANNEXES

6.1 Annex 1 – The RiskPACC 2nd Awareness Workshop: Registration Form

Save a backup on your local computer (disable if you are using a public/shared computer)

RiskPACC 2nd Awareness Workshop

Fields marked with * are mandatory.

Disclaimer

The European Commission is not responsible for the content of questionnaires created using the EUSurvey service - it remains the sole responsibility of the form creator and manager. The use of EUSurvey service does not imply a recommendation or endorsement, by the European Commission, of the views expressed within them.

This registration form is for the 2nd RiskPACC Awareness Workshop that will take place in Berlin on June 14th, 2023. The workshop will be held at the Fraunhofer-Forum Berlin, Anna-Louisa-Karsch-Straße 2, 10178 Berlin, Germany. There will be the opportunity to participate online for some of the sessions.

The workshop is open to all relevant stakeholders relating to the RiskPACC activities and topic.

RiskPACC has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101019707.

* Please enter your first name

* Please enter your last name

* Please enter your email address

* Please enter the name of your Organisation

* Please indicate what kind of stakeholder group you belong to.

between 1 and 3 choices

- Academics
- Developers
- End-users
- EU Institutions
- International Institutions
- National Institutions
- General Industry
- Civil Protection Authorities
- Students
- Civil Society Organisations

* Please indicate whether you would like to join in-person or if you are joining us online for the Workshop.

Please note that in-person places are limited.

Please also be informed that not all the sessions will be available online. Further details will follow with the agenda.

- In-Person
- Online

* I understand and consent to the personal data (first and last name, email address) above being used by RiskPACC for registration purposes only.

- Yes, I consent.
- No, I do not consent.

* Please read the information sheet below outlining RiskPACC's use of data

- Yes I have read the information sheet.
- No I have not read the information sheet.

Download

[RiskPACC_ParticipantInfo_InformedConsent_2nd_Awareness_Workshop.pdf](#)

* I understand that video and audio recordings will be taken at the event and may be used by RiskPACC in further promotional/media materials, and I consent to being recorded in this capacity.

- Yes I do consent
- No I do not consent

If you do not consent to being recorded and are joining online, please turn off your camera and do not use your real name for the workshop. If you do not consent to being recorded and are joining in person, we will make sure you are out of camera's view.

* Please indicate your consent of being interviewed and/or recorded by the organiser in order to collect feedback of the Event.

- Yes I do consent being interviewed and recorded.
- No I do not consent being interviewed and recorded.

* I consent to being contacted by RiskPACC for future events and to receive information materials (newsletters, project's updates).

- Yes I do consent.
- No I do not consent.

Submit

6.2 Annex 2 – The RiskPACC 2nd Awareness Workshop: Invitation Letter

RISKPACC 2ND AWARENESS WORKSHOP



SAVE THE DATE

The RiskPACC Project is pleased to invite you to the 2nd Awareness Workshop.

Participants will learn about results of RiskPACC, and at the same time enable the project to include participants' experiences in the further activities.



**14th June 2023
9 - 16 CET**



**Fraunhofer-Forum Berlin,
Anna-Louisa-Karsch-
Straße 2, 10178 Berlin,
Germany**



Register here

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101019707



6.3 Annex 3 – List of in-person attendees

Participant N°	Organisation	Country
1	ETH Zurich	Switzerland
2	City of Gdansk	Poland
3	Comune di Faenza	Italy
4	Deep Blue	Italy
5	EOS	Belgium
6	EOS	Belgium
7	Efus	France
8	Fraunhofer INT	Germany
9	HWR Berlin	Germany
10	IBZ	Belgium
11	I.S.A.R. Germany	Germany
12	ICCS	Greece
13	ISCIA	Portugal
14	KEMEA	Greece
15	KEMEA	Greece
16	KEMEA	Greece
17	MDA	Israel
18	Municipality of Rafina-Pikermi	Greece
19	Municipality of Rafina-Pikermi	Greece
20	City of Heidelberg	Germany
21	STAM	Italy
22	Trilateral Research	UK
23	Unione dei Comuni della Romagna Faentia	Italy
24	University of Stuttgart	Germany
25	University of Stuttgart	Germany
26	University of Warwick	UK
27	University of Warwick	UK

6.4 Annex 4 – List of online attendees

Participant N°	Organisation	Country
1	CAFO	Czech Republic
2	CAFO	Czech Republic
3	CERIS	France
4	Code for all	Poland
5	Crowdsense	Netherlands
6	Deep Blue	Italy
7	EOS	Belgium
8	EOS	Belgium
9	Fraunhofer IML	Germany
10	ISPRA	Italy
11	CNVVF	Italy
12	Italian Red Cross	Italy
13	Municipality of Padova	Italy
14	Provincia di Terni	Italy
15	UCL	UK
16	UIC	France
17	University of Bucharest	Romania
18	University of Florence	Italy
19	University of Warwick	UK
20	University of Warwick	UK
21	VU Amsterdam	Netherlands

6.5 Annex 5 – The RiskPACC 2nd Awareness Workshop: Agenda

09.30 – 10.00	Welcome and registration	FhG, EOS
10.00 – 10.15	Remarks and RiskPACC Overview	Maike Vollmer (FhG), RiskPACC Coordinator
10.15 – 10.45	Peer Learning exchange activities and an introduction of the RiskPACC associated cities	Bamba Niang (Efus)
10.45 – 11.15	Risk and uncertainty communication: what works?	Sarah Dryhurst (UCL)
Coffee Break		
11.30 – 11.45	RiskPACC repository of good practices	Sascha Dürkop (FhG)
11.45 – 12.15	RiskPACC's Co-Creation Workshop Process	Jeannette Anniés (USTUTT)
12.15 – 13.00	RiskPACC technological solutions based on crowdsourcing and VGI to bridge the Risk Perception Action Gap	Pietro De Vito (STAM), Chrysoula Papathanasiou (ICCS)
Lunch Break		
13.45 – 15.45	Working Groups Parallel Sessions: Testing selected technological solutions – the Hermes and Aeolian AR mobile app	Pietro De Vito (STAM), Chrysoula Papathanasiou (ICCS)
15.45 – 16.00	Wrap Up, Lessons Learnt and Workshop Conclusions	Maike Vollmer (FhG)

6.6 Annex 6 – Feedback answers

Answers to question “*To what extent did the peer-learning exchange activities put the cities at the center of the knowledge sharing process?*”

- Very much. It was interesting to hear other cities/municipalities issues, and the to understand the ways they can benefit from the project outcomes
- Difficult to answer. I assume they were integrated in the overall production of outputs presented.
- By getting to know the concept and the goals of the project, by exchanging information and experience with the case study partners.
- They should learn how to conduct the activities
- Hard to answer but it is a good way to learn how to proceed and intervene in different situations
- Interesting to hear other municipalities issues and how to react
- The involving of the stakeholders is a trade mark of the project
- get to know solutions that we didnt think of
- From my point of view, the cities were involved by way of public protection officers in the offices, also by the public who live in the cities. Analysis of emergencies that have affected or may affect cities was important and intereting.
- It was a good Information and Diskussion about the Apps
- It was very interesting to hear directly from the representatives from three of the partner cities about the CP issues they are tackling. They all hinted at their interest in the tools being developed by RiskPACC, but it was not entirely clear to me how the cities will be a part of the next and final step of the project. If the intention is for the same peer-learning exchange activities that were run in the afternoon of the workshop to be run in each of the cities, then they need to be more structured and tailored to the cities needs (they were a bit all over the place at the workshop). Or is the intention that the feedback from the cities will help make the tools more structured and tailored in what they can deliver?
- To a large extent
- By facilitating exchanges between the project consortium and cities outside of the consortium, the peer-learning module created an environment where cities could actively participate and contribute to the co-creation of solutions. The focus was on closing the gap between the project's findings and good practices from around the world, ensuring that cities played a central role in the knowledge sharing process. This approach fostered a collaborative and participatory approach, empowering cities to contribute their expertise
- By providing them with the tools developed by the project so far and making them the reference and a measure for future activities
- The first approach of the three invited cities associated with RiskPACC, was very successfull, the cities presented the emergencies they have faced and highlighted the need to strengthen the resilience of society to risks. They also had the chance to

participate in all the workshop group activities, so, in my opinion, they were put at the center of the knowledge sharing process to a great extent.

Answers to question “Which field of expertise, type of hazard, or organisational focus would you like to apply RiskPACC’s Co-Creation Workshop Process to?”

- We already did for earthquake preparation of volunteers.
- Large scale blackout.
- Addressing the local risks and raising awareness regarding floods and fires.
- Local risks mainly
- Earthquakes
- Workshop of Municipality Authority and in Fire Departments above Lisbon City
- citizens mitigations, volunteers organize, resilience centers
- We have already organized a workshop on 2 topics - traffic accident with leakage of hazardous substance and flood. It would be interesting in case of big forest fire and windstorm or tornado.
- Forest fire and flood
- Blackout
- Earthquakes at local level
- Engagement with citizens about wildfire preparedness (rather than top-down education)
- I believe urban Planning can be really interesting. The workshop process can be utilized to engage urban planners, architects, engineers, and local government officials in co-creating solutions for resilient urban infrastructure and land-use planning. This could involve addressing hazards analysed in RiskPACC such as floods, earthquakes, or heatwaves and integrating risk reduction measures into urban development plans.
- Additional hazards (pandemics, terrorist attack etc.)
- Earthquakes
- blackout, energy shortage
- Wildfires, Floods, Earthquakes, Everything that is connected with the Climate Change
- In the field of risk management, especially regarding the risks of fire and floods, which mainly concern our municipality.

Answers to question “How do you assess the potential usefulness to citizens of HERMES/Aeolian App?”

- Very useful, to us more the Aeolian.
- Many things were thought about and one can sense that end-users were involved in the development process. It has the potential to improve the information nation avaleae

but it remains unclear how this information will transcend to the citizen level to provide better guidelines to reduce the RPAG.

- Becoming more aware of risks, participating actively in risk protection, training in risk management is very important to citizens.
- 4 very useful
- Hermes: Useful, Aeolian: Very Useful
- Both useful
- Useful HERMES / Very useful Aeolian
- Aeolian have very high potential because it can actually work with every type of community
- We learned more about the HERMES application and how it works during its presentation. It looks interesting and can be useful. We tried the Aeolian app ourselves in our free time and also with the workshop participants. The final version, if fine-tuned, could be very useful for its users.
- They are useful in cases of flood, wildfires, forestfires and for trainings.
- Very useful
- "The session on HERMES was plagued by technical issues, and when it did function, I will admit that I did not really see great value in what it has to offer. Yet another web application delivering communication/information overload?!"
- The development of the Aeolian App is more promising. I can see this being useful as a way for CP agencies to crowdsource information about incidents and emergencies. Its application/focus is still too broad, and its current education aspect underdeveloped with potentially problematic advice given to people use the app (e.g., the advice given about wildfire preparedness), but with more refinement to the need of particular countries or regions, it has potential."
- Very useful
- Both apps can be of increased usefulness to local communities
- Very useful
- The technological tools will raise awareness to citizens, enhance communication with the CPAs and be better prepared in case of emergencies.

Answers to question *"How do you assess the potential usefulness to CPAs of HERMES/Aeolian App?"*

- Useful
- If it is accepted by the relevant users it can be very helpful to narrow the RPAG amongst CPAs and to receive information from the citizen level. But it will treat additional work and it will depend on this work whether the tool will be useful or not.

- They will contribute greatly to risk management.
- 4 verry useful
- Hermes: Useful, Aeolian: Very Useful
- The can contribute to risk management
- Very useful
- im not sure that in real time hazzerd the CPA will use anykind of application.
- There are many unanswered questions on functionality. Also, the operator, who will be responsible as the CPA for the data entered into the application to make it relevant. Also of course it depends on the PR of the app, the more people download the app the more useful it will be to the general public.
- They are useful to get Information in some cases of long lasting Hazards. May be combineable with existing Apps.
- both very useful
- See answer to Q10.
- Very useful
- Both apps can support enahnced risk communication which is useful to both CPAs and citizens
- Very useful
- The technological tools will help the cpas approach the citizens in all the stages of risk management, they will offer new ways of communication with them, but also ways of collaboration with other cpas.

Answers to question *“What aspects and features, if any, would you recommend changing/improving in HERMES/Aeolian App?”*

- None at yhe moment
- Being in local language.
- Also to download it on ios (apple)
- Multilingual option
- None
- be able to work even if there is no internet if someone want to get in and see latest updates; improve the user friendly when it comes to childrens; add functions for people with disabilities
- some questions as concrete as possible
- nothing at the moment
- See answer to Q10 + direct feedback provided to Aeolian App survey.

- Aeolian App
 - Remember the password when signing in (although I have checked the box "remember me", it doesn't keep the password)
 - More clear separation of the training material in the app. e.g.
 - greek-english,
 - avoid extra steps - > if you keep the wildfire-response as a category, there is no need of keeping an extra step-page of just saying "recovery". Instead it should show you just the categories.
 - in the information tab, ""I finished reading"" is needless
 - a tab with all gathered information of how the app works, who is checking all the incoming and out-coming information and events, who is responsible of checking the reports.

Hermes App

- Information of how the app works
 - Improvement of the profile picture->
 - available more avatars for both genders
 - ability to upload a bigger size photo or having a tool to reduce a higher size photo
 - information tab of how the app works and its availability.
 - defining the geographic boundaries and the area of the warning system. (maybe as an extra it could be a button that can shows you different preferences.
 - more filters -> e.g. choice by countries
 - Future steps-> information could be read not only in a document file that someone should download it, but could be uploaded us an article
 - availability of comments
 - Keeping history of comments and chats.
- Mother tongue instead of english, be able to download also for i phone/ ios phones

Answers to question *“What are some desired features that you would like to see in HERMES/Aeolian App?”*

- None at the moment
- Hermes: show a mockup of how the later timeline/dashboard could look like
 Aeolian: prevent the supervisors of being too exposed to hurtful content provided, e.g., photos of dead animals or bodies uploaded by citizens"

- None
- None
- more gamified improvements and ways to push people to actually use it.
- We sent a lot of input on behalf of CAFOs as input for features, and we always talked to the technical team. At this stage, we think the foundation of the app is useful. The "Good to Know" section could be expanded. The quizzes too. They could then be used in the context of public protection education, e.g. for children in schools etc.
- nothing at the moment
- See answer to Q10.
- Accessibility for people with special needs

The RiskPACC Consortium



FIGURE 15: THE RISKPACC CONSORTIUM