



PANTHEON

Community-Based Smart City Digital Twin Platform
for Optimised DRM operations and Enhanced Community
Disaster Resilience

D1.2

PERIODIC REPORT ON DRS STAKEHOLDERS' INPUTS



The project has received funding from the European Union's Horizon Europe programme under Grant Agreement N°101074008.

DOCUMENT INFO

Deliverable Number	D1.2
Work Package Number and Title	WP1: Project & Quality Management
Lead Beneficiary	JOAFG
Due date of deliverable	31/10/2023 (M10)
Deliverable type¹	R
Dissemination level²	PU
Author(s)	Simon Bittner (JOAFG); Alena Dikosova, Martin Kostolny (ISEMI)
Internal reviewer(s)	Daoíz Zamora (MION); Philippe Chrobocinski (ADS); Mike Karamousadakis (THL); Constanze Geyer (JOAFG)
Version - Status	1.0

TASK ABSTRACT

Effective stakeholder involvement means bringing together representatives from key stakeholders and users with different viewpoints. This provides an opportunity to explain objectives and concerns, question different viewpoints and eventually to resolve some of the perceived conflicts through better mutual understanding. The Users' Advisory Board (UAB) will be formed by CBDRM and policy advisors, NGOs, SSH experts from national or regional institutions. The UAB will be formed as planned in section 3.2 Management structure and procedures, under ISEMI supervision. Key objectives of this task: 1) to constitute a collaborative transdisciplinary and stakeholder / end user dialogue group 2) to understand opportunities and challenges as well as stakeholders' claims or points of view and their underlying reasons, 3) to identify shared purposes among relevant stakeholders, 4) to guide the participatory design and monitoring.

¹ Please indicate the type of the deliverable using one of the following codes:

R = Document, report

DEM = Demonstrator, pilot, prototype, plan designs

DEC = Websites, patents filing, press & media actions, videos

DATA = data sets, microdata

DMP = Data Management Plan

ETHICS: Deliverables related to ethics issues.

OTHER: Software, technical diagram, algorithms, models, etc.

² Please indicate the dissemination level using one of the following codes:

PU = Public

SEN = Sensitive

REVIEW HISTORY

Version	Date	Modifications	Editor(s)
0.1	25/09/2023	Draft TOC	Simon Bittner (JOAFG)
0.2	09/10/2023	Contribution related to PANTHEON Stakeholder Group	Alena Dikosova, Martin Kostolny (ISEMI)
0.3	16/10/2023	First draft	Simon Bittner (JOAFG)
0.4	18/10/2023	Internal review	Daoíz Zamora (MION); Philippe Chrobocinski (ADS)
0.5	23/10/2023	Internal review	Mike Karamousadakis (THL)
0.6	24/10/2023	Internal review regarding WP2 contributions	Constanze Geyer (JOAFG)
1.0	25/10/2023	Final version	Simon Bittner (JOAFG)

DISCLAIMER

The document is proprietary of the PANTHEON consortium members. No copying or distributing, in any form or by any means, is allowed without the prior written agreement of the owner of the property rights.

Funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or European Commission. Neither the European Union nor the granting authority can be held responsible for them.

TABLE OF CONTENTS

List of figures	5
List of tables	6
Executive summary	7
1 Introduction	8
2. Concept For DRS Stakeholders' input in PANTHEON	9
3. Users' Advisory Board (UAB).....	11
3.1 Approach & Governance of the UAB.....	11
3.2 UAB members.....	11
3.3 Content for UAB discussions	14
4. PANTHEON Stakeholder Group (PSG).....	16
4.1 The Crisis Management Innovation Network Europe (CMINE.eu)	16
4.1.1 What is the added value of this platform.....	17
4.1.2 What can CMINE do for PANTHEON project	17
4.1.3 The Site's Structure.....	18
4.2 PANTHEON Stakeholder Group on CMINE.eu.....	18
4.2.1 Membership.....	19
4.2.2 Features for engagement and stakeholders' management	21
4.2.3 Current status of the PSG	21
4.2.4 Next steps	22
4.2.5 Content for the PSG	22
5. DRS stakeholders' input	23
5.1 WP2 – Approach For Building Disaster-Resilient Communities	23
5.1.1 Task 2.2 Regional Multi-Hazard/risk data assessment.....	24
5.1.2 Task 2.3 Community vulnerability and capacity assessments.....	24
5.1.3 Task 2.5 Participatory Governance Model	24
5.2 WP3 – PANTHEON Requirements, participatory design process and pilot Use-Cases specifications	24
6. Conclusions	26
7. List of Abbreviations.....	27
8. References.....	28
9. Appendix	29

Appendix A: Non-Disclosure Agreement.....	29
Appendix B: Informed Consent Form (Example from WP3 Workshops)	33

LIST OF FIGURES

Figure 1: CMINE logo	16
Figure 2: Structure of CMINE	18
Figure 3: PSG overlay for non-members	19
Figure 4: CMINE registration form	20
Figure 5: Request to join the PSG	21

LIST OF TABLES

Table 1: Mechanisms for DRS stakeholders' input	10
Table 2: Members of the Users' Advisory Board (by M10)	11
Table 3: Number of DRS stakeholders involved by M10.....	23

EXECUTIVE SUMMARY

The PANTHEON project joins the fight against both natural and man-made disasters by modernizing existing disaster resilience models and developing tools to build a community-based digital ecosystem for disaster resilience.

The project is following a user driven approach placing the end-users and related experts in the core of the development process. Related subjects are already represented in project consortium itself, but in addition to this, mechanisms have been established to generate DRS stakeholders' input. These mechanisms comprise of the Users' Advisory Board (UAB) and the PANTHEON Stakeholder Group (PSG). The main goal is to involve as many experts as possible into the selected activities covering different viewpoints, collect their feedback about developing technologies, identify and discuss possible gaps and needs and support effective dissemination and exploitation of the project results through active stakeholder engagement. While the UAB serves as a curated dialogue group of interdisciplinary experts in related fields of Community-Based Disaster Risk Management (CBDRM), the PSG supports the PANTHEON project through a social network of DRS stakeholder members on the online platform CMINE.eu. These two pillars will ensure the sustained involvement of DRS stakeholders throughout the whole duration of the PANTHEON project.

Right from the beginning of the project, DRS stakeholders' input was collected as part of the work for *WP2: PANTHEON Approach For Building Disaster-Resilient Communities* and *WP3: Requirements, Participatory Design Process and Pilot Use-Cases Specifications*. For this, a total number of 21 participatory actions were conducted, including surveys, interviews and workshops. A total of 93 DRS stakeholders participated in these activities and provided input to the PANTHEON project covering many different viewpoints of key stakeholders and end users.

1 INTRODUCTION

The PANTHEON project aims to develop a community-based Smart City Digital Twin (SCDT) platform for optimised disaster risk management (DRM) operations and enhanced community disaster resilience. To achieve this, the involvement of different experts, stakeholders and end-users is crucial. Maximizing such contributions creates the conditions to strengthen the validity and applicability of the project results. This report covers the mechanisms established to ensure sustained involvement of DRS stakeholders and presents the input and insights provided by these stakeholders so far.

Chapter 2 provides the overall framework of how the continuous involvement of relevant stakeholder groups is ensured throughout the whole duration of the project. With the Users' Advisory Board (UAB) and the PANTHEON Stakeholder Group (PSG), two complimentary mechanisms are presented that support the collection of stakeholder input from different perspectives.

Chapter 3 draws a detailed picture of how the UAB aims to support the PANTHEON project and how the formation process of the board is going so far. Section 3.1 shortly describes the recruitment process and defines roles and responsibilities as part of the UAB's processes. In section 3.2, all experts who accepted the offer of joining the UAB are listed, together with information about their backgrounds. Section 3.3 then covers the kind of content to be discussed during UAB meetings and the expected benefit to be generated through these actions.

Chapter 4 focuses on presenting the idea behind the PSG and its current status. First, section 4.1 describes the online-platform CMINE and discusses the benefits of using it as a foundation to engage with comprehensive networks of DRS stakeholders in the PANTHEON project framework. Then, section 4.2 provides information on the PSG itself, what has been done to establish the group up to this point, and what are the expected next steps.

Finally, chapter 5 will give an overview of the extensive DRS stakeholders' input collected and utilized during the first 10 months of the PANTHEON project. For this, section 5.1 describes all participatory activities involving end-users and stakeholders during the work for *WP2: Approach For Building Disaster-Resilient Communities* and section 5.2 does the same for *WP3 – PANTHEON Requirements, participatory design process and pilot Use-Cases specifications*. The overall numbers of involved DRS stakeholders are presented in Table 3.

This report is then complemented by conclusions in chapter 6 and referenced documents in the appendix.

2. CONCEPT FOR DRS STAKEHOLDERS' INPUT IN PANTHEON

The PANTHEON project uses the input of Disaster Resilient Societies (DRS) stakeholders from the beginning of the project through all stages of development. Several different modes of DRS stakeholders' engagement are being pursued for the PANTHEON project that will be discussed in detail in this report. As an overall requirement for comprehensive and purposeful input, the involved stakeholders have been and will be selected not only for their knowledge and experience in relevant fields, but also with the goal of covering a broad interdisciplinary spectrum.

The target groups identified as relevant DRS stakeholders able to support PANTHEON's development with their input were identified as follows:

- Community representatives:
 - Administrative personnel and policy advisors
 - Representatives of NGOs (Non-governmental organisations) and the civil society
 - Responsible for critical infrastructures
 - Representatives of vulnerable groups
- End-users in Community-Based Disaster Risk Management (CBDRM):
 - Civil protection officers
 - Firefighters
 - Paramedics
 - Police officers
- Academic and SSH (Social sciences and humanities) experts
 - Experts in the field of disaster management
 - Experts on natural or man-made disasters
 - Experts in community engagement, capacity building and social vulnerability

Some of the stakeholders mentioned above are already represented in the consortium and therefore contribute to the development of the project and are also available to other partner organisations in the PANTHEON project for needed support and technical input. However, this report will focus on the input generated by DRS stakeholders who are not directly part of the consortium.

In the early phases of the project, all consortium partners utilized their networks to provide suitable contacts for the work in *WP2: PANTHEON Approach For Building Disaster-Resilient Communities* and *WP3: Requirements, Participatory Design Process and Pilot Use-Cases Specifications*. A specific outline of measures taken and input generated by the time of this report's submission (M10) is presented in section 5. DRS stakeholders' input.

To continuously support the PANTHEON project with diverse perspectives from the identified target groups, the concept for DRS stakeholders' input relies on two pillars, the Users' Advisory Board (UAB) and the PANTHEON Stakeholder Group (PSG), that serve as two different but complimentary approaches to stakeholder involvement. Table 1 gives an overview of the composition, purpose and modes of engagement of the UAB and the PSG, the two participatory mechanisms established to support PANTHEON's development process. For more details, see 3. Users' Advisory Board (UAB) and 4. PANTHEON Stakeholder Group (PSG).

Table 1: Mechanisms for DRS stakeholders' input

	Users' Advisory Board (UAB)	PANTHEON Stakeholder Group (PSG)
Responsible partner	JOAFG	ISEMI
No. of members	Max. 10	Unlimited
Background of members	<ul style="list-style-type: none"> • Interdisciplinary expertise with focus on CBDRM experts. • Majority from focus regions (min. 66%). • English-speakers • Even gender distribution is aimed for. 	<ul style="list-style-type: none"> • Representatives of all stakeholder groups. • No demographic limitations or quotas. • English-speakers.
Mode of operation	<ul style="list-style-type: none"> • Regular online meetings. • On-demand advice for partners via email. • Optional: Attendance at physical meetings and pilots. 	<ul style="list-style-type: none"> • Utilization of the online-platform CMINE (Crisis Management Innovation Network Europe). • Online forum discussion on posts. • Dissemination of project events.
Objectives	<ul style="list-style-type: none"> • Give feedback on project developments. • Provide participatory input on design and monitoring. • Enable the understanding of opportunities and challenges. • Accelerate the dissemination of project results. 	<ul style="list-style-type: none"> • Enabling the inclusion of many different perspectives. • Network that may be approached regarding interview, workshop and questionnaire participation. • Target group for dissemination and events.

3. USERS' ADVISORY BOARD (UAB)

The Users' Advisory Board (UAB) is a closed group of external experts that will accompany the PANTHEON project from the point of its formation to the end of the project. Consisting of stakeholders, end-users and SSH-experts from different relevant fields, the UAB forms a dialogue group that will discuss all matters of the project development from an interdisciplinary perspective. Further, the members agree to be available for enquiries by project partners by email.

3.1 APPROACH & GOVERNANCE OF THE UAB

As part of the recruitment of UAB members, all consortium members were asked to contact suitable experts from their network (according to predefined backgrounds and objectives as described in Table 1: Mechanisms for DRS stakeholders' input). If those experts agreed, their contacts were provided to the task leaders of JOAFG. Together with all expert contacts from participatory research as part of WP2 & WP3 a suitable composition of UAB members was approached step by step. At the moment of this report's submission (M10), seven members have confirmed their accession to the UAB.

A first board meeting will be held around 1 month after the finalisation of the UAB formation. This is planned to take place in M12 (Dec-23). After this, regular online meetings will be held at an interval of 6 to 12 months, depending on the projects' presentable progress and needed input. As a result, at least three regular UAB meetings have to be implemented in the timeframe of the project.

The UAB meetings will be moderated by JOAFG, while the content for discussion will be presented/provided by representatives of all active WPs. The sessions will be recorded, transcribed and analysed by JOAFG. The results covering all expert advice collected during the UAB meetings will be disseminated within the project consortium as soon as consolidated. Further, it will be reported on as part of D1.3 Periodic Report on DRS Stakeholders' inputs (second version – M24) & D1.4 Periodic Report on DRS Stakeholders' inputs (third version – M36).

As a formal act of joining the UAB, all members signed a Non-Disclosure Agreement (NDA), confirming their confidentiality obligation regarding all project developments (Appendix A: Non-Disclosure Agreement).

3.2 UAB MEMBERS

By the time this report was submitted (M10), seven members of PANTHEON's UAB have confirmed their participation. The members, as well as their professional background and current occupation are presented in Table 2. Since the developments in the first ten months of the project led to a unanimous effort to move one focus area/pilot area from Paris/France to Vienna/Austria via an amendment of the Grant Agreement, stakeholders from Vienna are being actively approached at the time of this report's submission. One firm commitment was agreed on by this time.

Table 2: Members of the Users' Advisory Board (by M10)

Name	Country	Current occupation	Professional background
Michel Bour	FR	FIRE-IN European Project Manager at SAFECLUSTER; Crisis management trainer	Michel Bour is the Fire chief, senior fire officer responsible for the French side, of the monitoring of the implementation of cross-border disaster relief with the German and Swiss

		Teacher at Upper-Rhine University	Rescue Services. From 2011 to 2019, he was elected as General Secretary from the CTIF, International Association of Fire and Rescue Services. From 2014 to 2016, he carried out missions in China, in the context of an EU-China cooperation.
Dr. Sergi Alegre	ES	Director General of Airport Regions Council	Dr. Sergi Alegre is the former vice-mayor of the city of El Prat de Llobregat and member of the Metropolitan Government of Barcelona, where he held office for 27 years. In this function he was in charge of urban development and collected expertise in community participation; He is a former fireman (total of 15 months) and had the chance to get to know disaster management as an end user. Today, Dr. Alegre works as the Director General of Airport Regions Council and represents numerous regions in this function.
Dr. Jelena Mazaj	IT	Coordinator, Higher Education and Research Unit (HE&R), CESIE	With over 15 years of professional experience, she has combined research, training, administrative work, and consultancies in capacity building and knowledge management for higher education institutions, responsible research and innovation, and non-formal education. Her expertise in the sector encompasses various roles such as lecturer, international relations officer, project coordinator, and local expert for research and innovation (R&I) and mobility projects. Currently, she holds the position of HE&R Coordinator at one of the largest NGOs in Italy - CESIE, where she oversees research in areas such as sustainability, rural development, resilience, digital learning, internationalization, STEM (Science, Technology, Engineering, Mathematics), and others. Her recent research focuses on analysing networks for sustainable innovations and the impact of exogenous factors on organizational performance. Dr. Mazaj is the author or co-author of more than 10 scientific publications and has contributed to over 15 project deliverables.
Dr. Nikos Passas	EL	Head of the Independent Department for Civil Protection of the Region of Attica	Dr. Nikos Passas holds a First Degree on Earth Sciences from the University of Athens (Greece), a Masters (M.Sc.) and Ph.D. degree in Engineering Geology both from Imperial College, London (UK). He has extended experience in

			<p>soil/rock mechanics, environmental management, crisis management, decision making tools related to environmental impact/climate change/natural disasters, acquired from authoring 35 scientific publications, managing/participating in 15 research contracts (EC, PHARE/TACIS, ASIA ITC, WORLD BANK) and more than 100 environmental studies. His present position as Head of the Independent Department for Civil Protection of the Region of Attica, Greece has yielded already two awards for excellent performance: the SILVER Best City Award and the Gold IoT (Interest of Things) Award.</p>
Ioannis Kapris	EL	Independent Department for Civil Protection of the Region of Attica (Design Department for Civil Protection)	<p>Ioannis Kapris holds a Bachelor's degree in Earth Sciences from the University of Athens (Greece) and a Master's degree (M.Sc.) in Environmental and Disaster Management, both from the University of Athens (Greece). With extensive experience in environmental management, crisis management, and research related to environmental impact, climate change, and natural disasters, he has authored 15 scientific publications. In his current role, which he has held since February 2021, as a member of the Independent Directorate of Civil Protection of the Attica Region, Ioannis Kapris is a member of the Design Department for Civil Protection in the Region of Attica, Greece. His contributions have already been recognized with two prestigious awards: the SILVER Best City Award and the Gold IoT (Internet of Things) Award.</p>
Areti Plessa	EL	Independent Civil Protection Directorate, Region of Attica (Department of Planning)	<p>Areti Plessa was awarded a BSc degree in Geology in 1996, a MSc degree in Seismology-Geophysics in 2001 and a second MSc degree in Disasters and Crises Management Strategies in 2019, all degrees from the University of Athens. She has been employed at the Institute of Geodynamics, National Observatory of Athens (1997-2019) holding a permanent position in earthquake and tsunami data analysis and network monitoring. She has been involved in supporting research in several EU and national funded projects, mainly in the field of earthquake and tsunami risk. She has served as co-chair in Working Group 4 on "Public Awareness, Preparedness and Mitigation of tsunami risk", at the Intergovernmental Coordination Group of the North-Eastern</p>

		<p>Atlantic and Mediterranean Tsunami Warning System of UNESCO (2016-2021). She currently holds a position at the Independent Civil Protection Directorate, Region of Attica (Department of Planning) and her main responsibilities are focused on disaster planning and preparedness, such as developing Special Plans for dealing with disasters at regional level, aligned with the National Civil Protection Plans and conducting civil protection exercises (2019-now).</p>
Dr. Maria Papathoma-Köhle	AT	<p>Senior Postdoctoral Researcher, Institute for Mountain Risk Engineering, University of Natural Resources and Life Sciences Vienna (BOKU)</p> <p>Maria Papathoma-Köhle finished her degree in Geology at the University of Athens (GR) in 1997 and holds a MSc in Environmental Management from the University of Durham (UK) from 1998. She finalized her PhD on 'Tsunami vulnerability assessment using GIS with special reference to Greece' at the Coventry University (UK) in 2003. As an expert for vulnerability assessments of buildings based on indicators or vulnerability curves for tsunamis, floods, debris flows and wildfires as well as institutional vulnerability and physical resilience, she has been working for different academic institutes in Vienna since 2005. She is also the recipient of a number of Awards, including the Elise Richter Postdoctoral fellowship, works as a reviewer for numerous scientific journals and frequently publishes journal articles.</p>

3.3 CONTENT FOR UAB DISCUSSIONS

During its meetings, the UAB will discuss current developments of the PANTHEON project to provide input from their diverse stakeholder perspectives. These discussions will put focus on the following aspects:

- providing valuable input at the beginning of the project's development work with regards to specific user requirements,
- discussing opportunities, challenges and their underlying reasons, helping to identify shared purposes among relevant stakeholders,
- advising on changes in societal, regulatory and stakeholder priorities that may have an impact on the project and its objectives,
- accelerating and amplifying the dissemination of project results to the disaster resilience community.

In order to give an accurate picture of said project developments, all WP leaders of currently running WPs will be asked to prepare and present the work done, results generated and issues faced during the work on

tasks within their WP. These presentations may also be delegated to task leaders, if assessed as useful by WP leaders. Special attention will be given to difficulties and issues in which the UAB members' expertise may be of benefit.

4. PANTHEON STAKEHOLDER GROUP (PSG)

This group is focused not only on end-users/practitioners, but also on different community representatives, as communities play an integral role in the PANTHEON project. At the same time, it is open for any other stakeholders, such as academia, research & development, industry, private and third sector, critical infrastructure operators, etc.

As a first action, the decision on the suitable working environment for such a group, had to be taken. The basic possibilities were:

- a) to use standard communication tools like emails and phones,
- b) to use communication applications like MS Teams, WhatsApp or another SM,
- c) to create a tailored and brand-new platform,
- d) to establish a specific group on an already established platform, ideally in the topic area of the project,
- e) to continue with a combination of above.

Of course, physical meetings should also be possible, but this is a question of particular needs, availabilities and expenses. However, the PSG should be able to support implementation of such meetings.

During the initial phase of the project, all options were analysed and the decision was taken to use the platform CMINE.eu for the purpose of the group. This platform, as well as our particular group, are described below.

4.1 THE CRISIS MANAGEMENT INNOVATION NETWORK EUROPE (CMINE.EU)

The Crisis Management Innovation Network Europe (CMINE) is an open, cooperative and inclusive information network for sharing information, experiences, best practice and lessons learned among individuals, crisis management organizations, researcher entities, industry and policy makers throughout Europe and beyond.

CMINE provides a superb window to participate in and observe discussions on innovation and thereby establish an unprecedented sharing of knowledge across all fields of Crisis Management and Disaster Risk Reduction.



Figure 1: CMINE logo

CMINE also links stakeholders from existing projects, networks and initiatives to reduce repetition and fragmentation, whilst encouraging new ideas, and identifying innovative solutions to improve European resilience.

Developed and funded within the FP7 mechanism as part of the Driver+ project, CMINE has the ongoing support of the Commission's Research Executive Agency (REA) with a stated ambition to grow it by adding users and functionality to the existing DG HOME 'Community of Users' and DG ECHO UCPM 'Knowledge Network'. The platform is now managed by The Resilience Advisors Network™ (RAN) with the express intention of supporting individual crisis managers, project teams and research establishments.

For example, it also hosts the Network of Centers of Expertise which was formed to support projects and initiatives that involve the piloting of innovative technical solutions in the field of Crisis Management. This network extends the scale of support available to members considerably.

CMINE brings together a diverse group of stakeholders that would not normally interact with each other on a regular basis, encouraging the exchange of information. This includes policymakers, practitioners, members of the private sector, NGOs, science & research, training & exercising, media and standardization representatives.

4.1.1 WHAT IS THE ADDED VALUE OF THIS PLATFORM

CMINE offers its members an on-and-offline environment to actively engage with other crisis management professionals. Its guiding principles and ambitions are to (based on leaflets and information on cmine.eu):

- **Become a platform for crisis management innovation in Europe:** Share and discover key information such as results of research projects and cutting-edge crisis management solutions and stay up to date on crisis management news and events.
- **Foster multi-stakeholder and cross-sectoral interaction:** Join a diverse group of stakeholders active in crisis management, share knowledge, generate ideas and work together to solve current and future challenges.
- **Engage with the professional community:** initiate and participate in discussions about the latest developments and future trends in different crisis management domains, such as wildfires, earthquakes, floods, but also CBRN incidents, avalanches and similar events as are featured in the PANTHEON project.
- **Provide visibility and networking opportunities to the crisis management community:** Showcase results (both EU-funded and national research projects) to increase visibility, while expanding members' networks through an experts' database.

4.1.2 WHAT CAN CMINE DO FOR PANTHEON PROJECT

CMINE provides connection to other projects, entities and initiatives with a similar interest or profession as is intended for our PSG, not only those who are already currently on the platform, but also future users. Crisis Management can be viewed as a process of planning, collaboration and mutual support. CMINE, as the basis of the PSG, provides a platform and communication means to make that a reality by connecting the PANTHEON project with an international network of likeminded individuals and organizations with a range of complimentary skills and experiences.

It provides the opportunity to engage with established groups and project teams, organizations and response teams, international players and policy setters as well as event organizers and trainers.

In practical terms, the platform will be used to deliver the following specific capabilities to PANTHEON as part of its integrated communication and dissemination strategy:

- A quality assured approach to the General Data Protection Regulation (GDPR). This embeds the capability to place data protection at the core of PANTHEON processes,
- A specific membership and contact scheme that will maintain communicability amongst project members and other partners,
- A live feed to promote information sharing amongst the project team,
- A secure group for thematic discussions and debates,

- A structured and secure document and media repository,
- A portal to communicate project progress and requests to the wider Crisis Management profession,
- Event publication facility immediately making PANTHEON's events known across like-minded researchers and practitioners,
- Event registration, ticket sales/allocation and attendance management.

Extended support is also available to take advantage of the comprehensive suite of facilities such as Group hosting, surveying, confidential communication and event management.

4.1.3 THE SITE'S STRUCTURE

To make itself accessible to the broadest range of experts functioning within the crisis management arena, the site is organized with a communal area for all members and specific groups/forums to address specific interests and specialties. It is this easy distribution concept that is being deployed by the PSG. The project now has its own area as well as a shared working place where it interacts with external colleagues engaged in related themes. There are other specific areas for those interested in various aspects of the Driver+ legacy such as trial design, the register of crisis management tools/products in development (known as the Portfolio of Solutions) and training. Finally, there are forums dedicated to specific professional subjects such as wildfire, flooding, CBRN, etc.

CMINE provides a number of other services to members such as rolling newsfeeds coming out of the main emergency and humanitarian organizations – UNDRR, OCHA and The Union Civil Protection Mechanism amongst others.

The platform provides a fully functioning event management facility, for discussing, promoting and administrating conferences and meetings (registrations, ticketing, etc.). In addition, for virtual events and webinars, CMINE also provides a functionality for members to do online meetings with up to 300 attendees and with full classroom and breakout facilities. Figure 2 gives an overview of the general structure and menus of the CMINE platform.



Figure 2: Structure of CMINE

4.2 PANTHEON STAKEHOLDER GROUP ON CMINE.EU

As described above, CMINE allows PANTHEON to create a specific group within the platform, called the PANTHEON Stakeholder Group (PSG). It was created during the initial phase of the project and is supervised by the International Security and Emergency Management Institute, n.p.o. (ISEMI).

Currently it is set up as PRIVATE group, meaning that its content is not visible to all CMINE users (see Figure 3) and membership is subject to coordinator approval. Due to this procedure, it is possible to easily ensure and control the sensitivity of the group's content.

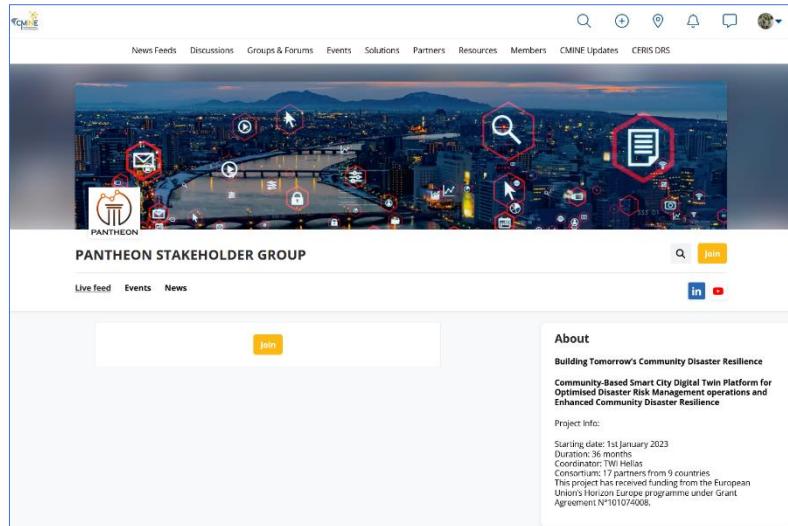


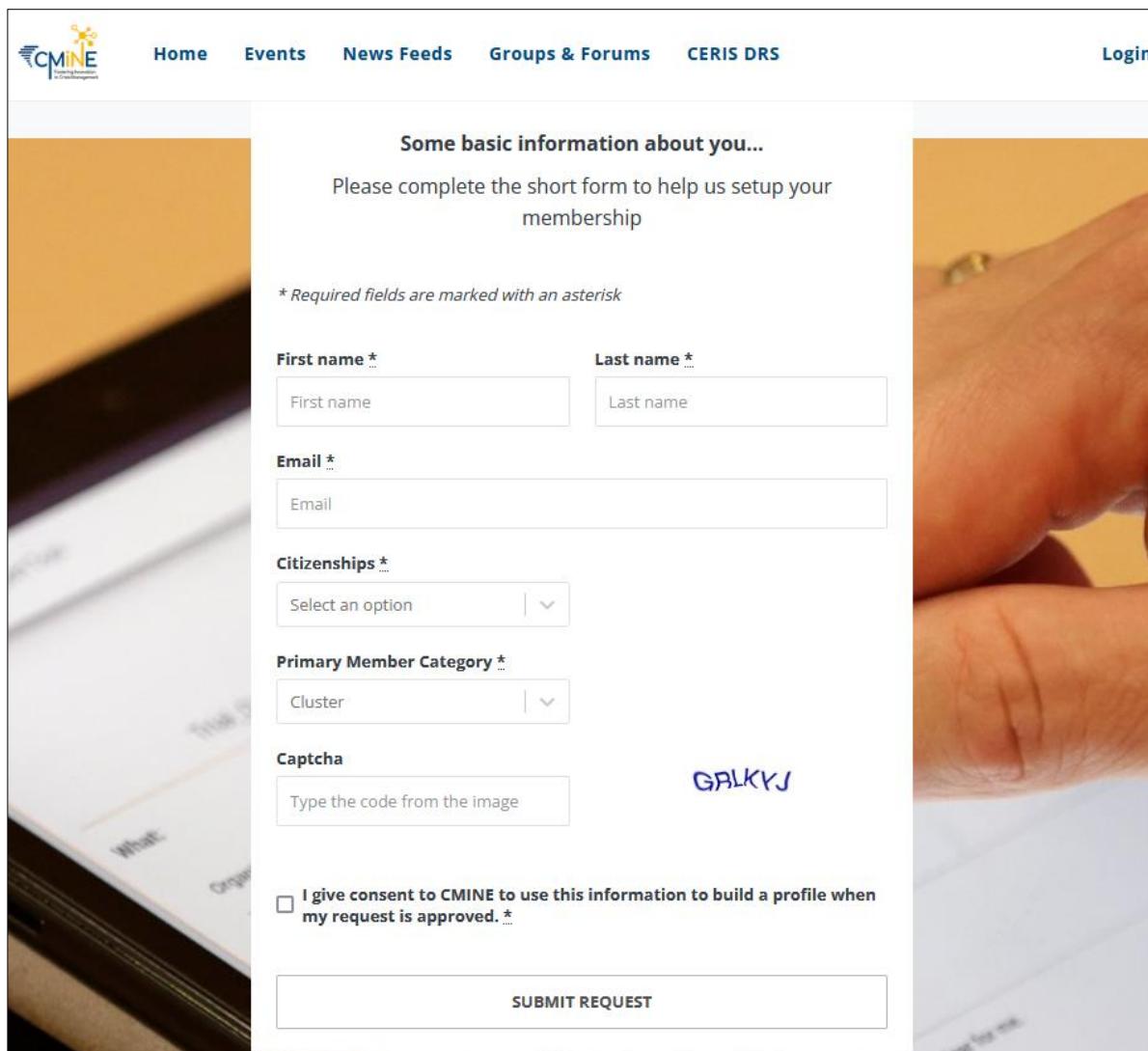
Figure 3: PSG overlay for non-members

4.2.1 MEMBERSHIP

Interested users are requested to create their own profile on the platform through an agreed registration process. This allows them to make use of the different features and functionalities of CMINE, whether interested in the PSG or not.

This is possible by filling in the registration form (Figure 4) with basic personal information. There is also the requirement to give consent to the use of this information. The platform already applies necessary compliance rules for GDPR, requiring no additional action in this regard.

Once the registration is confirmed and the user is logged-in, it is possible to browse the page and use the features of the platform. One of them is to search for the groups of personal interest such as the PSG. Currently it is classified as “Private groups” as well as “Projects”. If there are more specific groups in a particular section, they can be viewed by clicking “load more”.


 A screenshot of the CMINE registration form. The form is titled "Some basic information about you...". It includes fields for First name, Last name, Email, Citizenship, Primary Member Category, and a CAPTCHA. A checkbox for giving consent to build a profile is present, along with a "SUBMIT REQUEST" button. The background of the form features a photograph of a hand holding a pen over a document.

Some basic information about you...

Please complete the short form to help us setup your membership

** Required fields are marked with an asterisk*

First name *

Last name *

Email *

Citizenships *

Primary Member Category *

Captcha
 GALKYJ

I give consent to CMINE to use this information to build a profile when my request is approved. *

SUBMIT REQUEST

Figure 4: CMINE registration form

Once the user has a registered account, the PSG can be accessed here: <https://www.cmine.eu/topics/37356>

Registered users can interact with all the users, projects, organizations and other entities on the platform.

The body of the homepage consists of the latest information / main possibilities:

- ✓ write a post
- ✓ share information
- ✓ see recently active users as well as all the members and also latest new joiners
- ✓ see upcoming events as well as all the events
- ✓ see the posts
- ✓ all these inputs can be commented, liked, shared, reported ...

At the top of the page, there is a main menu, where it is possible to work with:

- news feeds (search, filter, display, comment, look for details, etc.)
- discussions (search by keyword, start new one, reports on existing ones, etc.)
- groups and forums (search – by name, keyword, location and proceed to particular groups)

- events (search and proceed to details)
- solutions (search and proceed to details)
- partners (create, search and proceed to details)
- resources (search and proceed to details)
- members (search – by name, keyword, location and proceed to particular profiles. It is possible to send a direct message to the selected user. Users are also displayed on the map.)
- CMINE updates (home page).
- CERIS DRS (CERIS DRS Cluster Arrangements).

There are also shortcuts/icons for search and for sharing different information (post, trip, event, location, reference), sharing location, notifications, messaging and own profile.

To be able to fully participate in the group, it is necessary to join the group by clicking on the yellow button “Request to join” (see Figure 5: Request to join the PSG). A subsequent simple procedure of approval needs to be done by the group coordinator(s). Once this is done, the new user will receive notification and everything is ready. The coordinator can manage membership.



Figure 5: Request to join the PSG

4.2.2 FEATURES FOR ENGAGEMENT AND STAKEHOLDERS' MANAGEMENT

Members of the group can see details of each other and can interact with each other to contribute.

Layout and possibilities are similar to those described above for the whole platform. It is possible to write a post, see a basic description of the group, there is contact data of the group coordinator as well as additional information, latest posts and a group tailored menu with shortcuts and icons. There is also information about latest joiners, links to social media and a media center, where different documents / files can be stored and be available for the members.

It is important to highlight that information shared on the group is visible only for the group members.

4.2.3 CURRENT STATUS OF THE PSG

Currently (M10 of the project), the PSG has 19 members. These cover both project consortium members and external stakeholders and include experts and practitioners from different sectors like Science & Research

(10), NGO/Charity (4), Industry/Consultancy (2), Training and Education (1), General Crisis Management (1) and Other (1).

4.2.4 NEXT STEPS

The basic framework of the PSG is already established and the processes are set. Next activities will be focused on two main aspects:

- Content – uploading and sharing of inputs coming from other project tasks and WPs.
 - Posting of ideas, findings, experiences, as well as questioning
 - Launching “communications”
 - Adding “news”
 - Uploading relevant files into the “Media center”
- Users – involvement of new members and management of activities for existing ones.
- Engagement management - enhancement of the possibility of the members’ participation in project activities not only remotely, but also physically if possible, especially in pilots or other suitable events.

Last, but not least, the functionality of the entire platform will be secured and necessary support will be provided based on users’ and the project’s needs.

4.2.5 CONTENT FOR THE PSG

With the aim to promote active participation using all the features of the platform and to stimulate fruitful contributions of PSG members, it was decided that related project partners will provide brief pieces of information describing different aspects of the project:

- Presentation of project consortium partners and its staff,
- General info about completed deliverables,
- Descriptions about technologies under development and achievements until now,
- Activities and events of the project
- Possibly other news, not directly concerning the PANTHEON project, but related to its domain.

These articles will be short, interesting for our target group, easy to read and with a goal to provoke a reaction, either in the form of a comment or a question.

5. DRS STAKEHOLDERS' INPUT

By the time of this report's submission (M10), both UAB and PSG were in the process of formation. However, extensive involvement of DRS stakeholders was already performed during the work for *WP2 Approach For Building Disaster-Resilient Communities* and *WP3 PANTHEON Requirements, Participatory Design Process and Pilot Use-Cases Specifications*. While the methodology applied during this work and the findings derived from collected stakeholder inputs is reported on within the respective Deliverables (D2.1, D2.2, D2.3, D2.5 and D3.2), a short overview of participatory actions applied up to this point is presented in the following sections. Table 3 summarizes the number of DRS stakeholders involved in PANTHEON's development by M10. Due to the planned pilot change from Paris/France to Vienna/Austria, the survey and interviews are also being conducted for Vienna. The descriptions follow in the subsequent versions of this periodic report.

Table 3: Number of DRS stakeholders involved by M10

Method	Number of executions	Number of participating DRS stakeholders
Surveys	2	44
Interviews	14	14
Workshops	5	35
Total	21	93

In compliance with the General Data and Protection Regulation (GDPR) of the EU, all stakeholders who gave their input as part of interviews, workshops or surveys signed an informed consent form. These forms were adapted for discussed content and method applied (for an example see Appendix B: Informed Consent Form (Example from WP3 Workshops)).

5.1 WP2 – APPROACH FOR BUILDING DISASTER-RESILIENT COMMUNITIES

As part of the work conducted for *WP2: Approach For Building Disaster-Resilient Communities*, several actions were implemented in order to capture the views and opinion of DRS stakeholders. In addition to task-specific interviews and workshops that will be described in the following sections, an online questionnaire covering several WP2 tasks (T2.1, T2.2, T2.3) was developed. This questionnaire was distributed among 140 DRS stakeholders, who were identified through partner networks and proactive online research, and filled out by a total of 39 of these DRS stakeholders. The contacted questionnaire participants had expertise in the following fields:

- First responders
- Civil protection organisations/ Governmental and policy making authorities
- Schools
- Disability associations (mental and physical)
- Hospitals
- Organizations supporting/working with women
- Charitable institutions
- Nursing homes
- Organizations working with migrant groups/refugees
- Public authorities/NGOs performing community work/educational work on disaster management
- Technology, energy, network providers

A detailed description of the methodological approach as well as recruiting and conduction can be found in *D2.3 Community Vulnerability and Capacity Assessments (VCAs) report*.

It should be noted that the activities in WP2 were carried out prior to the proposal to move the pilot area from Paris/France to Vienna/Austria, but the substantive impact is minimised by carrying out all the necessary empirical activities again for Vienna/Austria (e.g. the questionnaire).

5.1.1 TASK 2.2 REGIONAL MULTI-HAZARD/RISK DATA ASSESSMENT

As part of the work for *Task 2.2. Regional Multi-Hazard/risk data assessment*, the desk-based research was integrated with information from seven interviews with representatives of Civil Protection Authorities (CPAs) at national, sub-national and regional level from the focus regions Paris/France and Athens/Greece and with various backgrounds. The interviews aimed to obtain insights from the status quo of national hazard, risk assessment and disaster management tools used in the two countries, as well as from the potential approaches for improvements and recommendations for community outreach. Further, the interview findings helped in identifying gaps and challenges to be considered during risk assessment and planning processes in order to enhance civil protection and emergency management capabilities.

5.1.2 TASK 2.3 COMMUNITY VULNERABILITY AND CAPACITY ASSESSMENTS

For *Task 2.3 Community vulnerability and capacity assessments*, a total of seven semi-structured stakeholder interviews were conducted. Due to time constraints of approached stakeholders, three of those interviews had to be conducted in written form via email. Four of the interviewees were active in France and three in Greece. They had a diverse set of backgrounds: an international fire brigade, earthquake planning and protection, an engineering school with expertise in disaster management, a risk expert, information technology (IT) administration in a psychiatric hospital, safety advisement in an NGO, and a schoolteacher in a Community and Citizens stakeholder organisation. The collected data from T2.3 interviews was used to further contextualize the findings of the survey presented before, in chapter 5.1 WP2 – Approach For Building Disaster-Resilient Communities.

5.1.3 TASK 2.5 PARTICIPATORY GOVERNANCE MODEL

For *Task 2.5 Participatory Governance Model*, two stakeholder workshops were conducted with seven participants from different European countries (including France and Greece) covering a broad range of expertise. This included policy and CBDRM advisors, first responders and SSH experts in the engagement of volunteers as well as vulnerable groups as part of disaster management. Additionally, an open-ended exploratory survey was distributed to civil protection agencies and experts in natural and man-made disaster management. A total of 12 DRS stakeholders gave input for the development *D2.5 Participatory governance model and recommendations* and therefore complemented the extensive literature research in the definition of recommendation on how to best involve, engage and mobilize communities in all phases of disaster management.

5.2 WP3 – PANTHEON REQUIREMENTS, PARTICIPATORY DESIGN PROCESS AND PILOT USE-CASES SPECIFICATIONS

Within the work conducted for *WP3: PANTHEON Requirements, Participatory Design Process and Pilot Use-Cases Specifications*, some activities were implemented related to the stakeholder inputs. *Task 3.2 Participatory Design Process* aimed at defining design criteria and decision support for the technical

development of PANTHEON, based on stakeholder feedback with a focus on end-users. After identifying the potential end-users in each region (by this time the pilot change to Vienna was already internally decided), they were approached and invited to *Participatory Design Workshops*.

Three *Participatory Design Workshops* were conducted with a total of 28 participants from Vienna/Austria and Athens/Greece. Participants included representatives from:

- Ministries involved in disaster management
- Civil protection authorities
- Regional disaster management officials
- Ambulance services, fire brigades and police

From the outcomes generated through the workshops, five potential Use Cases for an implementation of the developed system were identified. In each of these Use Cases, the participating end-users estimated that the proposed system would provide added value. Further, an extensive recommendation catalogue was developed which presents end-user-based design criteria that are allocated to each of the Use Cases.

6. CONCLUSIONS

The PANTHEON project is accompanied by extensive involvement of DRS stakeholders to collect their input for a purposeful development process and to utilize their expertise as well as dissemination networks. This involvement is backed by the implementation of a complimentary two-pillar approach.

The Users' Advisory Board (UAB) will serve as a dialogue group of curated experts from different fields that give their multi-perspective input on current project developments on a regular basis through online meetings. The Pantheon Stakeholder Group (PSG) is a private online forum on the social network platform CMINE that focuses on crisis management stakeholders. The PSG will be utilized to discuss findings and outcomes with a wide stakeholder audience and facilitate a target-oriented dissemination of project events and results.

During the first 10 months of the PANTHEON project, a total of 93 DRS stakeholders were involved in the developments. Their input was collected by the means of interviews, surveys and workshops. They supported the consortium during the multi-hazard and risk assessment, the community vulnerability and capacity assessments and the development of a participatory governance model. Further, they provided crucial insights into the needs and requirements of disaster managers and first responders, leading to the definition of end-user-based design criteria for the system in development.

7. LIST OF ABBREVIATIONS

Abbreviation	Meaning
CBDRM	Community-Based Disaster Risk Management
CMINE	Crisis Management Innovation Network Europe
CPA	Civil Protection Authority
CTIF	Comité Technique International de Prévention et d'Extinction du Feu
DRM	Disaster Risk Management
DRS	Disaster Resilient Societies
HE&R	Higher Education and Research
IoT	Internet of Things
NGO	Non-Governmental Organisation
PSG	PANTHEON Stakeholder Group
RAN	Resilience Advisors Network
REA	Research Executive Agency
R&I	Research and Innovation
SCDT	Smart City Digital Twin
STEM	Science, Technology, Engineering, Mathematics
SSH	Social Sciences and Humanities
UAB	Users' Advisory Board
UNESCO	United Nations Educational, Scientific and Cultural Organization
VCA	Vulnerability and Capacity Assessment
WP	Work Package

8. REFERENCES

Crisis Management Innovation Network Europe (CMINE): www.cmine.eu (last visit on 10.10.2023; 09:32)

9. APPENDIX

APPENDIX A: NON-DISCLOSURE AGREEMENT

NON-DISCLOSURE AGREEMENT

This Agreement is made effective as of the (insert date) by and between

TWI HELLAS ASTIKI MI-KERDOSKOPIKI ETAIREIA in the capacity of the Coordinator for the PANTHEON project (Project number: 101074008) as per the GA signed with the EC, representing the beneficiaries of the said project

Hereinafter "Disclosing Party"

and

(insert name and address of External Expert),

Hereinafter "Recipient"

to assure the protection and preservation of the confidential and/or proprietary nature of Confidential Information (as defined below) disclosed, to be disclosed or made available by Disclosing Party to Recipient in connection and for the purpose of the performance of the PANTHEON project ("Purpose").

Whereas the Disclosing part and the Recipient have an interest in participating in discussions wherein either Party might share information with the other that the disclosing Party considers to be proprietary and confidential to itself ("Confidential Information"); and

Whereas the Parties agree that Confidential Information of a Party might include, but not be limited to that Party's: (1) business plans, methods, and practices; (2) personnel, clients, and suppliers; (3) inventions, processes, methods, and other proprietary rights; or (4) specifications, drawings, models, samples, tools, programs, or other related information;

Now, therefore, the Parties wish to formalise the disclosure conditions of confidential information to be exchanged within these discussions and agree as follows:

1. All information in whatever form or mode of communication, which is disclosed by a Party (the "Disclosing Party") to any other Party (the "Recipient") in connection with the Project during its implementation and which has been explicitly marked as "confidential" at the time of disclosure, or when disclosed orally, has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within 15 calendar days from oral disclosure at the latest as confidential information by the Disclosing Party, is "Confidential Information".

2. The term "Confidential Information" shall not be deemed to include information which:

(a) the Recipient rightfully possessed before it received such information from the Disclosing Party as evidenced by written documentation;

- (b) was independently developed by or on behalf of Recipient without use of or access to the Confidential Information of the Disclosing Party;
- (c) subsequently becomes publicly available through no fault of the Recipient;
- (d) is subsequently furnished rightfully to the Recipient by a third party without restrictions on use or disclosure;
- (e) is required to be disclosed by law, provided that the Recipient will exercise reasonable efforts to notify the Disclosing Party prior to disclosure; or
- (f) is the subject of a written permission to disclose provided by the Disclosing Party.

3. Recipient shall maintain all Confidential Information in trust and confidence and shall not disclose to any third party or use any Confidential Information for any unauthorized purpose. Each party may use such Confidential Information only to the extent required under the Purpose. Confidential Information shall not be used for own purposes or the purposes of any third party, like for research, development, regulatory affairs or production, or any purpose or in any manner that would constitute a violation of any laws or regulations, including without limitation the export control laws. If one party is suspected to breach this Agreement, the suspected party has to prove that the matter of suspected violation is information in compliance with Paragraph 2.

4. If a Recipient becomes legally required to disclose any Confidential Information, the Recipient shall, to the extent legally permissible, provide the Disclosing Party with prompt notice so that a protective order, preliminary injunction, or other appropriate remedy may be sought. If such protective order, preliminary injunction, or other remedy is not or not fully obtained, the Recipient shall disclose only that portion of the Confidential Information that is legally required to be submitted in the opinion of the Recipient's legal counsel, and confidential treatment shall be requested. Compulsory disclosures pursuant to this Section will not alter the confidential designation of the Confidential Information, and the Recipient's obligations of confidentiality shall continue with respect to non-compelled disclosures.

5. The Confidential Information shall not be reproduced in any form nor to any extent except as required to accomplish the intent of this Agreement. The Recipient shall further not reverse engineer, disassemble or decompile any software or other tangible objects that embody Disclosing Party's Confidential Information.

6. Recipient under this Agreement shall advise its/her employees who might have access to the Confidential Information of the confidential and proprietary nature thereof and agrees that its employees shall be bound by the terms of this Agreement. No Confidential Information shall be disclosed to any employee who does not have a need for such Confidential Information. The Recipient shall not disclose any Confidential Information to any third party without the express written consent of the Disclosing Party.

7. All Confidential Information (including all copies thereof) shall remain the sole and exclusive property of the Disclosing Party and shall be returned to the Disclosing Party or destroyed upon request of the Disclosing Party, and in any event upon completion or termination of this Agreement. However, Recipient may retain one copy of the Confidential Information with its legal department to monitor compliance with this Agreement.

8. No rights, title, interest or licenses to trademarks, inventions, copyrights or patents are implied or granted under this Agreement. The Recipient is not eligible to apply for intellectual property rights related to the information of the Disclosing Party, e.g. patents, trademarks, utility models etc.

Nothing in this Agreement shall be construed as establishing any other business relationship or as representing any commitment by either party to enter into further agreements and/or to disclose any of its respective Confidential Information by implication or otherwise.

The parties do not warrant the accuracy or completeness of the Confidential Information disclosed.

No warranties or representations are given for Confidential Information. Recipient should rely on Confidential Information at its own risk. Confidential Information is provided "as is". Any warranty or liability due to incorrect, incomplete or otherwise faulty Confidential Information shall be assumed exclusively on the basis of any provisions in any agreement on technical cooperation or licensing which might follow this agreement in terms of time. Samples produced by the disclosing party do not contain any assurance as to the industrial-technical or economic usability of the Confidential Information embodied in the samples.

9. This Agreement shall continue in full force and effect for so long as the parties continue to exchange Confidential Information. This Agreement may be terminated by any party to this Agreement at any time upon thirty (30) calendar days written notice to the other party. The termination of this Agreement shall not relieve any party of this Agreement of the obligations imposed by this Agreement with respect to Confidential Information disclosed prior to the effective date of such termination and the provisions of those Paragraphs shall survive the termination of this Agreement for a period of five (5) years from the date of such termination.

10. This Agreement may not be changed, modified, amended or supplemented except by a written document signed by both parties including the written form requirement itself.

11. Each party hereby acknowledges and agrees that in the event of any breach of this Agreement by the Recipient, including, without limitation, the actual or threatened disclosure or unauthorized use of a Disclosing Party's Confidential Information without the prior express written consent of the Disclosing Party, the Disclosing Party will suffer an irreparable injury, such that no remedy at law will afford it adequate protection against, or appropriate compensation for, such injury. Accordingly, the parties agree that the Disclosing Party shall be entitled to temporary and permanent injunctive relief against the Recipient, its officers or employees and any such other rights and remedies to which the Disclosing Party may be entitled to at law, in equity or under this Agreement for any breach or threatened breach of this Agreement by the Recipient. The provisions of this Section 11 shall survive the expiration or termination of this Agreement for any reason. Upon breach or default of this Agreement, the non-breaching or non-defaulting party shall be entitled to recover all reasonable costs of enforcement hereof, including reasonable attorney's fees, expert witness fees and depositions' costs.

12. The parties' rights and obligations under this Agreement will bind and inure to the benefit of their respective successors, heirs, executors and administrators and permitted assigns. Neither party shall assign or delegate his/its obligations under this Agreement either in whole or in part without the prior written consent of the other party.

13. Should any provision of this Agreement be or become legally invalid or unenforceable, the validity of the remainder of the Agreement shall not be affected thereby. Invalid provisions shall be replaced with provisions which come as close as possible to the intended result of the invalid or unenforceable provision. In the case of a contractual gap, such provision shall be in force which comes as close as possible to the intended result of the agreement, if the matter had been considered in advance by the parties.

14. Any notices required or permitted hereunder shall be given to the appropriate party at the address specified below or at such other address as the party shall specify in writing.

15. This Agreement shall be governed by the laws of Greece, excluding its conflicts of laws principles. Place of jurisdiction is Athens, Greece.

Agreed To

Recipient / External Expert:	Disclosing Party:
Date, Signature	Date, Signature Dr. Panagiotis Chatzakos PANTHEON Beneficiary Coordinator TWI Hellas, Leoforos Kifisia 280, 15232 Halandri, Greece
Name/ Position / Address	

APPENDIX B: INFORMED CONSENT FORM (EXAMPLE FROM WP3 WORKSHOPS)

Informed Consent for participation

Project: PANTHEON Community-Based Smart City Digital Twin Platform for Optimised DRM operations and Enhanced Community Disaster Resilience

Topic: Participatory design process to build community disaster resilience

Participation: Workshop/Interview

Participant consent form

Before we start with the study, we would like to inform you about the data processing and ask for your consent. You need not worry about privacy as we will not share the information we have gathered from this study other than statistical and non-identifiable personal information in the report. Please tick the following:

- I am aware of the main aspects of the participation for the above PANTHEON project.
- I confirm that I have had the opportunity to ask questions.
- I understand that my participation is voluntary.
- I understand that my answers to any questionnaire will remain anonymous.
- I understand that if I don't wish to answer any particular questions, I am free to decline.
- I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the outputs that result from the research without my agreement.
- I agree to take part in the above-mentioned activity, the sole purpose of which is research.
- I give my consent to audio footage
- I give my consent for my contact details to be shared with the members of the research team for the purpose of receiving information and communications relating to the PANTHEON project.
- I understand, that I can revoke my consent at any time with effect for the future, whereby the lawfulness of the processing carried out on the basis of the consent until revocation is not affected. A revocation has the consequence that my data will no longer be processed for the above-mentioned purposes from that point on.
- I hereby confirm that I have read and understood this declaration of consent and that my questions were addressed properly.

Location and date:

.....

Name of the participant:

Signature participant:

.....

.....

This form should be signed and dated. A copy should be saved by the participant and one for the project documentation.

Project information

The EU-funded project PANTHEON will design and develop a Community based Digital Ecosystem for Disaster Resilience. In more detail, the aim is to improve risk assessment, reduce vulnerability, and strengthen community disaster resilience. Part of this is the enhancement of operational capabilities of Community Based Disaster Resilient Management (CBDRM) teams. To this end, it will use Smart City Digital Twin (SCDT) technology and leverage new and emerging technologies and innovations. For the specific developments in the project, our research focuses on Greece (Athens) and France (Paris) as pilot regions. Input from other areas will also be welcome to broaden the scope.

To achieve our goal of strengthening community-based disaster risk management, we are currently working on developing design criteria and decision support for technical developers to help make the PANTHEON tool useful and meaningful to disaster management agencies and end-user organisations. This includes:

- Survey and analysis of typical problems faced by stakeholders and end-users in the context of disaster management.
- Survey and analysis of stakeholder and end-user requirements for a system that would assist in disaster response planning.
- Develop design criteria for a disaster resilience system through a participatory design approach.

Methods: Conduct a workshop to identify typical problems faced by end-users and stakeholders that PANTHEON could help solve. The workshop will discuss the wishes and requirements of stakeholders and end-users for a system that would help them in disaster response planning. The recorded workshop will be transcribed and analysed by content analysis to answer the research questions.

Project Partners:

- 1 TWI ELLAS ASTIKI MI KERDOSKOPIKI ETAIREIA (Greece)
- 2 AIRBUS DEFENCE AND SPACE SAS (France)
- 3 M3 SYSTEMS BELGIUM (Belgium)
- 4 SOFTWARE IMAGINATION & VISION SRL (Romania)
- 5 Mobility Ion Technologies SL (Spain)
- 6 FUTURE INTELLIGENCE EREVNA TILEPIKINONIAKON KE PLIROFORIAKON SYSTIMATON EPE (Greece)
- 7 ECOLE NATIONALE DE L AVIATION CIVILE (France)
- 8 UNIVERSITAT POLITECNICA DE CATALUNYA (Spain)
- 9 PRACTIN IKE (Greece)
- 10 ISEM-INSTITUT PRE MEDZINARODNU BEZPECNOST A KRIZOVE RIADENIE, NO (Slovakia)
- 11 INTEROPTICS S.A. (Greece)
- 12 JOHANNITER OSTERREICH AUSBILDUNG UND FORSCHUNG GEMEINNUTZIGE GMBH (Austria)
- 13 EPSILON MALTA LIMITED (Malta)
- 14 INSTITUT DE SEGURETAT PUBLICA DE CATALUNYA (Spain)
- 15 HELLENIC POLICE (Greece)
- 16 KENTRO MELETON ASFALEIAS (Greece)
- 17 Crisis Management State Academy (Armenia)

Information about generated data

Processing of data and data protection

All data collected in the course of the survey will be treated confidentially and will only be viewed or processed by the project-involved employees of *project partner*, who stores the collected data material (in the role of data processor according to GDPR) and *project partners*, who works with the data material (in the role of data controller according to GDPR). Information that could lead to an identification of the person will be changed (anonymisation / pseudonymisation) or removed. In scientific publications, the data is post-processed accordingly, so that the resulting overall context of events cannot lead to an identification of the person by third parties. The results will be further processed in the form of a report and possibly further scientific publications.

The data will be processed on the basis of your consent for the purpose of carrying out the above-mentioned research project (collection, evaluation, generation of results, publications). The legal basis for this is the EU General Data Protection Regulation (GDPR), namely in particular Art 6(1)(a) (consent) in conjunction with the Austrian Research Organization Act (FOG). Your personal data (name, contact, age, gender, duration in working area, role in disaster management, allocation of organisation and information about the disaster management plan). The collected questionnaire ("raw data") will be kept for 10 years from the date of publication of the results of the project to demonstrate compliance with good scientific practice and then destroyed. Data required for the assertion, exercise and defence of legal claims will be stored for up to 30 years and subsequently deleted. You have the right to information, correction, deletion, restriction of processing, data portability, objection, and a right of appeal to the data protection authority at any time in accordance with legal provisions (in particular Art 15 to 22 DSGVO with the restrictions in § 2d paragraph 6 FOG).

Voluntary nature of participation

Participation in this survey is voluntary. Participants may withdraw at any time without giving reasons and without incurring any disadvantages. For this purpose, please keep this document with the contact: dpo@pantheon.eu

Confidentiality and anonymity

Your information will be used solely by researchers for research purposes in the context of the above research project. Personal information will not be shared with anyone outside the research team of this project. The published research results (publications, research reports) have no personal reference and therefore do not allow any conclusions to be drawn about your identity.

Right of withdrawal

In order to be able to fulfil your right of withdrawal and to enable assignment of the correct record for this purpose, we urgently recommend to save this informed consent with the following contact address, to be able to contact us: Cristina Barrado dpo@pantheon.eu or Anna Tsabanakis info@pantheon.eu