



LINKS

Strengthening links between technologies and society
for European disaster resilience

D8.3 UPDATED LINKS COMMUNITY STRATEGY 2

Report

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EXECUTIVE SUMMARY

About the project

LINKS “Strengthening links between technologies and society for European disaster resilience” is a comprehensive study on disaster governance in Europe. In recent years, social media and crowdsourcing (SMCS) have been integrated into crisis management for improved information gathering and collaboration across European communities. The effectiveness of SMCS on European disaster resilience, however, remains unclear, due to the use of SMCS in disasters in different ways and under diverse conditions. In this context, the overall objective of LINKS is to strengthen links between technologies and society for improved European disaster resilience, by producing sustainable advanced learning on the use of SMCS in disasters. This is done across three complementary knowledge domains:

- Disaster Risk Perception and Vulnerability (DRPV)
- Disaster Management Processes (DMP)
- Disaster Community Technologies (DCT)

The project will develop a framework through an iterative process and bring together 15 partners and two associated partners across Europe (Belgium, Denmark, Germany, Italy, Luxembourg, the Netherlands) and beyond (Bosnia & Herzegovina, Japan) to understand, measure and govern SMCS for disasters. The LINKS Framework consolidates knowledge and experiences on the uses of SMCS into useful products for relevant stakeholders. It will be developed and evaluated through five practitioner-driven European cases representing different disaster scenarios (earthquakes, flooding, industrial hazards, terrorism, drought), cutting across disaster management phases and diverse socioeconomic and cultural settings in four countries (Denmark, Germany, Italy, the Netherlands). Furthermore, LINKS sets out to create the LINKS Community, which brings together a wide variety of stakeholders, including first-responders, public authorities, civil society organisations, business communities, citizens, and researchers across Europe, dedicated to improving European disaster resilience through the use of SMCS.

About this deliverable

The current deliverable (D8.3) is an updated version of the LINKS Community Strategy (D8.1 and D8.2) that was originally submitted in M4 (September 2020) and M21 (March 2022). Its main objective is to present a refreshed overview of the strategy and goals of the LINKS Community, along with a final evaluation of our progress towards achieving the objectives for the LINKS Community. This community is composed of diverse stakeholders from various countries, professions, and perspectives who collaborate with the LINKS Consortium. The Stakeholders actively engage in learning from and benefiting from the project's development and outcomes while also contributing their expertise and knowledge to enhance LINKS research.

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LIST OF ACRONYMS

Acronym / Abbreviation	Description
DCT	Disaster Community Technologies
DMP	Disaster Management Processes
DRPV	Disaster Risk Perception and Vulnerability
CMINE	Crisis Management Innovation Network Europe
GA	Grant Agreement
IAP2	International Association for Public Participation
LAC	LINKS Advisory Committee
LCC	LINKS Community Center
LCW	LINKS Community Workshop
SMCS	Social Media and Crowdsourcing
WP	Work Package

DEFINITION OF KEY TERMS¹

Term	Definition
Disaster Community Technologies	A DCT is a software(-function) for interaction with, within or among groups of people who have similar interests or have common attributes (communities) in case of a disaster as well as performing analysis of these interactions.
Disaster Management Processes	A collective term encompassing a systematic series of actions or steps taken to reduce and manage disaster risk. Disaster management processes are often associated directly with the phases of the Disaster Management Cycle. In the context of LINKS, DMP are specifically referred to as the policy frameworks, tools and guidelines developed to govern disasters across all phases of the Disaster Management Cycle.
LINKS Framework	The LINKS Framework consolidates knowledge and experiences on the uses of social media and crowdsourcing in disasters, into products for

¹ Definitions are retrieved from the LINKS Glossary (<https://links-project.eu/glossary/>).

		relevant stakeholders. The Framework is accessible online through the LCC, and can be used by stakeholders to openly explore knowledge, or as a strategic planning tool for guiding disaster management organizations in their planning for using social media and crowdsourcing in disasters.
LINKS Center	Community	The LCC brings together different stakeholders (LINKS Community) in one user-friendly and flexible web-platform and enables them to exchange knowledge and experiences and to access, discuss and assess learning materials on the usage of SMCS in disasters.
LINKS Domains	Knowledge	<p>The three crucial domains of analysis for studying European disaster resilience and SMCS. These include:</p> <p>Disaster Risk Perception and Vulnerability (DRPV), for assessing changes in the citizens' perception of disaster risks induced by SMCS, as well as assessing the changes in the vulnerability of practitioners and citizens.</p> <p>Disaster Management Processes (DMP) for analysis of how SMCS changes the procedures and processes within the crisis and disaster management.</p> <p>Disaster Community Technologies (DCT), for assessing SMCS related technologies used by practitioners (and citizens) in disasters.</p>
LINKS Workshop	Community	Workshops for capacity-building at the local level, organised locally by the LINKS project partners and linked to the five pre-defined case studies (earthquake in Italy, industrial disasters in the Netherlands, drought in Germany, flooding in Denmark and terrorism in Germany). They are crucial for gathering and communicating information regarding the project's objectives and requirements, and for exchanging best practices among local stakeholders on the use of SMCS in disasters.
LINKS Committee	Advisory	Invited professionals and experts from relevant organizations (representing practitioners, researchers, and citizens) that advise, inform and validate developments and results in the project.
(Disaster) perception	Risk	Risk perception is the way individuals and groups appropriate, subjectivize and perceive risks that might or might not be calculated in an objective manner during risk assessments. The importance of studying risk perception more seriously is obvious: risk perception directly influences people's ability and level of preparedness. Risk perception covers what is also referred to as "risk awareness".

1. INTRODUCTION

One of the primary goals of the LINKS project is to establish a sustainable stakeholder community known as the LINKS Community. This concept was first introduced in deliverable D8.1: LINKS Community Strategy (Philpot & Reuge, 2020) and expanded in D8.2 Updated LINKS Community Strategy 1 (Bianchi & Giacinti, 2022). The LINKS Community is composed of multidisciplinary stakeholders from multiple countries, professions, and schools of thought. They collaborate within the LINKS project, actively participating in its development and benefiting from its results. Simultaneously, they contribute their expertise and knowledge to enhance the research conducted within LINKS. The LINKS Community comprises both consortium partners and external stakeholders, working in a collaborative manner to gain deeper insights and generate new knowledge regarding the utilization of social media and crowd sourcing (SMCS) in disaster situations.

This deliverable serves as an update to the LINKS Community Strategy (D8.1) and the Updated LINKS Community Strategy 1 (D8.2). The report offers a comprehensive overview of the Strategy and includes an assessment of the progress made towards achieving the objectives set for the LINKS Community up to M39.

The following are the main updates made since D8.2:

- **General Objectives:** The objectives for the LINKS Community have been revisited to give more consideration and emphasis on empowering the target groups that the Consortium aims to reach through the Community.
- In this final stage of the project the focus is on identifying the stakeholders who will be end users as well as those that have shown greater interest in the project, results, and have the expertise to ensure the long-term sustainability by taking on the development of the LINKS Framework and products.
- LCWs have been conducted allowing for greater engagement and enlargement of the Community, contributing, and validating the LINKS Framework and products.
- **Revisited Target Group Categorization:** The categorization of the LINKS Community's target groups has been revisited to ensure relevance and accuracy.
- **Actions for Sustainability:** Concrete actions to ensure the sustainability of the LINKS Community Center (LCC) and, consequently, the entire LINKS Community, are outlined.

The present deliverable is structured in the following way:

- **Section 2: Overview of the objectives of the LINKS Community** - Introduces and revisits the general and specific objectives of the LINKS Community.
- **Section 3: Current Composition of the LINKS Community** - Presents the current composition of the LINKS Community.
- **Section 4: Revisited Target Group Categorization** - Introduces a reevaluated categorization of the target groups forming the core of the LINKS Community.

- Section 5: Engagement with the LINKS Community - Explores the purpose of engagement with the LINKS Community, provides an overview of the LINKS Community engagement roadmap, and presents the main activities carried out until M39.
- Section 6: The LINKS Community- Presents the primary tools and procedures established within the Consortium to build the LINKS Community.
- Section 7: Ensuring long-term Community Sustainability - Introduces strategies for ensuring the sustainability of the Community beyond the project's lifetime.

2. OVERVIEW OF THE LINKS COMMUNITY

As highlighted in the introduction, the LINKS Community stands as a primary outcome of the project, designed to continue its existence beyond the official project conclusion. It holds significant importance within the project, and to maximize its impact, specific objectives were established to steer the LINKS Community's role and initiatives. In the following section, we delve into these objectives and their anticipated benefits, providing an updated account of the Community's general objectives presented in Deliverable D8.2.

2.1 Objectives of the LINKS Community

The primary aim of the LINKS Community is to establish a versatile platform for information exchange and feedback within the project. It serves as a means to understand stakeholders' needs and experiences and incorporates this valuable input into research efforts to drive continuous improvement. Moreover, through active engagement with the LINKS Community, external stakeholders have the opportunity to contribute actively to the development and sustainability of the LINKS project's outcomes. Stakeholder engagement lies at the heart of the strategy for building the LINKS Community. To optimize the strategy's effectiveness, both general objectives (Section 2.1.1) and specific objectives (Section 2.1.2) are revisited and further elaborated upon to track and assess progress effectively. This iterative approach ensures that the LINKS Community remains a dynamic and impactful force within the project and beyond.

2.1.1 General objectives of the LINKS Community

Throughout the project's duration, the general objectives for the LINKS Community have undergone a review to give greater consideration and emphasis to the needs of the project. However, the objectives set out in D8.2 remained relevant for the duration of the project and as such remain the following:

- **Empowering Stakeholders:** Provide participants with a firsthand insight into the project's developments and offer them the opportunity to contribute to the research findings. The objective is to empower external stakeholders by incorporating the project's developments and findings into their practice, enabling them to enhance their work or that of their organizations.
- **Sharing Knowledge and Good Practices:** Utilize the LINKS Community as a platform to facilitate and foster the exchange of information, knowledge, and best practices concerning the use of social media and crowdsourcing (SMCS) for disaster resilience. This objective aims to establish the LINKS Community as a valuable resource for the disaster management community.
- **Connecting with Relevant Communities:** Forge connections with other relevant communities and networks at the EU-level and beyond. By doing so, the LINKS Consortium aims to ensure

that the knowledge and scientific evidence produced in LINKS are utilized by external stakeholders, ultimately contributing to the enhancement of resilience in local communities.

- Enduring Impact: Ensure the LINKS Community continues to thrive even beyond the research project's duration. The objective is to maintain the LINKS Community as a valuable tool for different stakeholders dealing with, or affected by, SMCS in disasters, extending its usefulness beyond the project's lifetime.

2.1.2 Specific objectives of the LINKS Community

The LINKS project encompasses four specific objectives, three of which are directly related to the development of the LINKS Community. In the Grant Agreement (GA) and Deliverable D8.1, various criteria relevant to the LINKS Community were identified for each of these three specific objectives. These criteria serve as the foundation for assessing the performance of the LINKS Community, as achieving them contributes to fulfilling the related project objectives. In turn these criteria were further modified and made more objective specific in D8.2 (See D8.1 and D8.2 for more information). In the final phase of the LINKS project, the specific objectives for developing the LINKS Community have been further narrowed to coincide with the needs of the project. Specific objective 2 is not addressed as it isn't related to community building.²

Find below, Table 1 with the respective assessment criteria identified in D8.2, and an evaluation of our progress towards achieving the objectives for the LINKS Community at M39.

² Objective 2 (O2): Achieve a consolidated understanding of SMCS in disasters. This objective leads to a consolidated understanding of SMCS in disasters within Europe for different stakeholders. Knowledge bases for each of the three knowledge domains (DRPV, DMP and DCT) will be elaborated beyond the state-of-the-art and extended through the five cases. Through the project these knowledge bases will be consolidated in the LINKS Framework.

Table 1: LINKS Project specific objectives and assessment at M39

Specific Objective	Specific objective met if:	Criteria for assessment	Assessment at M39
<p>1: Sustainable advanced learning on SMCS in disasters.</p> <p>3: Govern the diversity of SMCS in disasters.</p>	<p>These objectives are met if the LINKS Framework becomes sustainable. This means that knowledge in the Framework is not only shared but acted upon, meaning it is used by different groups of stakeholders within the LINKS Community (e.g. methods by researchers, socio-technical tools by practitioners) during and after the project.</p>	<ul style="list-style-type: none"> • Criterion 1: at least 50% of the LINKS Community members in the countries where the cases take place, representing all target groups that are included in the LINKS Community, have assessed and contributed to the LINKS Framework by month 42. • Criterion 2: at least 25% of the members from the different target groups in the LINKS Community are using the Framework by M42. 	<ul style="list-style-type: none"> • Criteria 1 has been met. Through Workshops, webinars, LINKS Community Workshops, LAC events, and conferences where LINKS has participated our community members in the case countries have been able to assess and contribute to the framework. • Criteria 2 is presently being focussed on in order to ensure that at least 25% of the members from different target groups are using the framework by M42
<p>4: Bring multidisciplinary SMCS stakeholders together.</p>	<p>The Community database covers and addresses several sets of stakeholders with different background and fields of expertise across Europe.</p>	<p>Criterion 1:</p> <ul style="list-style-type: none"> • practitioners represent at least 25% of the Community database entries at M42; • policy and decision-makers represent at least 20% of the 	<ul style="list-style-type: none"> • This criterion has been met. The Community database has been expanded to 225 contacts, of which 25% at least are practitioners, 20% policy and decision makers, 20% local communities, 10% businesses,

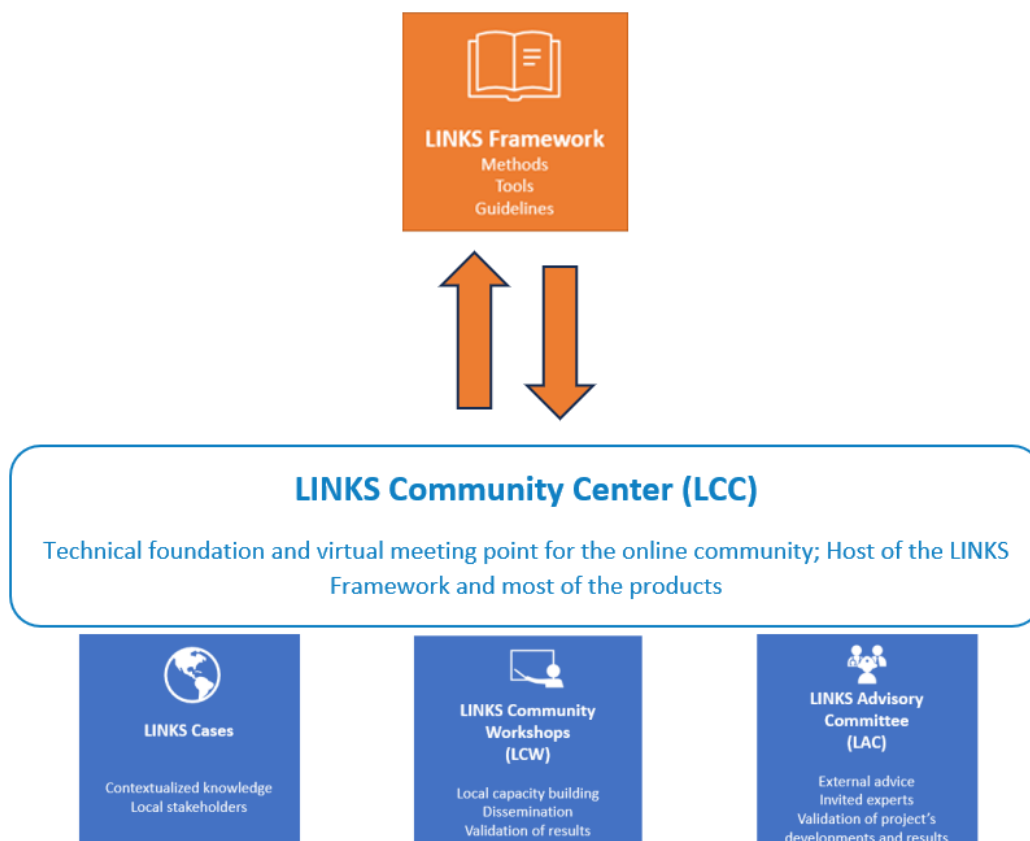
		<p>Community database entries by M42;</p> <ul style="list-style-type: none"> • local communities represent at least 20% of the Community database entries at M42; • businesses represent at least 10% of the Community database entries by M42; • developers represent at least 10% of the Community database entries by M42; • Civil Society represent at least 5% of the Community database entries by M42; • feedbackers represent at least 5% of the Community database entries by M42; • disseminators represent at least 5% of the Community database entries at M42. 	<p>10% developers, 5% Civil Society, 5% feedbackers, and 5% disseminators.</p>
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Upon meeting the requirements stipulated by the LINKS Community during the M39 assessment, we have undertaken a slight reevaluation of our objectives. Specifically, our focus has shifted towards identifying and acknowledging the key stakeholders who will be actively involved in contributing to the project's outcomes, particularly pertaining to the long-term sustainability of the LINKS project. The final months of the LINKS project will focus on further targeting these stakeholders in order to ensure they take on greater use and development of the LINKS products, that each individual stakeholder may be interested in. As a result, the key communication, dissemination, exploitation, and community building work will be focused on advancing this issue.

3. COMPOSITION OF THE LINKS COMMUNITY

The visual representation of the LINKS Community is depicted in the following figure.

Figure 1: visual representation of the LINKS Community



The architecture of the LINKS Community revolves around three primary modalities of knowledge-sharing and interaction throughout the project's duration:

- **LINKS Cases:** These encompass a diverse range of hazard scenarios, geolocations, socio-cultural and demographic contexts, such as earthquake in Italy, industrial disasters in the Netherlands, drought in Germany, flooding in Denmark, and terrorism in Germany. The cases serve as conduits to harness contextualized knowledge from local stakeholders and apply it to the LINKS research.
- **LINKS Community Workshops (LCWs):** These workshops are closely tied to the LINKS cases and serve the purpose of enhancing capacity at the local level in collaboration with pertinent

stakeholders. The LCWs, organized locally by LINKS project partners, concentrate on specific research-relevant topics and contribute to the outcomes of the LINKS initiative.

- LINKS Advisory Committee (LAC): The LAC comprises selected professionals and experts whose role involves advising, informing, and validating developments and findings within the project.

The feedback collected from the LINKS Community through the aforementioned channels - LINKS cases, LCWs, and LAC - serve as the bedrock to inform the research and outcomes of the project. On a broader scale, these inputs are vital for the establishment and evaluation of the LINKS Community Center (LCC) and the LINKS Framework. Notably, both the LCC and the LINKS Framework are designed to transcend the project's lifecycle and evolve into established resources catering to various stakeholders engaged in or affected by social media and crowdsourcing (SMCS) in disaster scenarios.

It is important to emphasize that the LINKS Cases are continually ongoing and are extensively detailed in D6.4 (First LINKS case report), D6.5 (Second LINKS case and broader context report) and D6.6 (Final report on the LINKS Framework application in a broader context). In the following sections, we place particular focus on the LCWs and LAC, while briefly addressing the pivotal role of the LCC within the context of the LINKS Community. Finally, we also present a risk-management plan concerning LINKS activities.

3.1 LINKS Community Workshops (LCWs)

The LINKS Community conducts Local Community Workshops (LCWs) as a means of enhancing capacity at the local level and facilitating direct engagement with diverse stakeholders. The workshops serve as platforms for knowledge exchange, sharing of best practices, and receiving feedback regarding the utilization of Social Media and Crowdsourcing (SMCS) in disaster contexts. This feedback and knowledge are subsequently incorporated into the LINKS project to enhance its research and the development of its products.

Operated at the local level and organized by local partners, the LCWs enable the gathering and dissemination of information concerning the project's objectives and outcomes. These workshops are conducted in the countries designated as cases for the LINKS research, namely the Netherlands, Germany, Italy, and Denmark, with each LCW focusing on case scenarios relevant to its respective

location (e.g., industrial disasters, drought, terrorism, earthquakes, and flooding). Importantly, the LCWs remain inclusive, welcoming external stakeholders, including regional, national, and international experts, provided their relevance to the project and its outputs.

The LCWs are guided by general objectives, which encompass the following:

- Facilitate improved information and knowledge exchange among stakeholders in local cases, including relevant experts within the broader LINKS Community.
- Collect data to inform assessments of the LINKS knowledge bases and contribute to the development of the LINKS Framework.
- Disseminate updates on project developments and findings.

These objectives act as guiding principles to ensure that the LCWs yield optimal outcomes, reinforcing the effectiveness of the LINKS research and results. The overarching aspiration is that the discussions and conclusions derived from the LCWs will contribute substantially to disseminate the project's results and building up the community, whilst allowing for the collection of valuable feedback from the validation and development of the LINKS products. Organizers gain valuable insights to better direct their research efforts and understand the needs of local stakeholders, while participants acquire fresh knowledge and perspectives that enable them to enhance their individual or organizational work.

It is essential to note that each LCW also possesses its specific objective, and the benefits resulting from each workshop, both from the perspective of the LINKS project and external stakeholders, will vary based on the discussions, topics, and participants involved.

To conclude, the LCWs serve as a concrete avenue for the LINKS Community to engage in the sharing and gathering of experience and knowledge. This reciprocal exchange ensures ongoing improvement in the LINKS research through meaningful discussions and mutually beneficial outcomes for diverse target groups and the project itself. This has been exemplified in the LCWs carried out so far throughout the project. Presently at M39, 13 LCWs have taken place (Please see D8.4 and D8.5, and D8.6 for detailed reports on the LCWs).

Please find below tables 2 and 3 depicting the LCWs that have taken place so far in the project and table 4 depicting some of the planned LCWs.

Table 2: Completed LCWs 1 -7

0	18 (09.11.2021)	21 (07.02.2022)	22 (11.03.2022)	23 First half (08.04.2022)	23 First half (08.04.2022)	24 (04.05.2022)	24 (04.05.2022)
LCWS #	1	2	3	4	5	6	7
Location	Italy	Germany	Denmark	Germany	Germany	Germany	Germany
WPs	WP2	WP6	WP3	WP4	WP4	WP6	WP4
Cases	Earthquake in Italy	Terrorism Germany	Flooding	Drought Germany	Drought Germany	Terrorism	Drought
Description	1st introductory workshop used to create a network of local stakeholders and to collect information regarding their needs and expectations on the use of SMCS in disasters.	Focus on differences in social media usage among German police agencies and provided valuable feedback on the SMCS Guidelines.	Initial workshop for practitioners in FBR and HBR. Aimed at improving information and knowledge exchanges between practitioners, in particular the workshop focussed on the use of and barriers to social media and crowd sourcing.	The use of SM during a heat wave in the city of Paderborn. Discussion with local and national stakeholders from first responder and SMCS expertise. Developed and discussed key elements of a SM strategy in order to prepare for an upcoming heat wave.	The use of SM during a heat wave in the city of Paderborn. Focused on the technologies that could be implemented in combatting drought.	The aim of the workshop was to evaluate the current state of art of the use of SMCS within the German special forces as well as how the LINKS project could contribute to the project's outcomes.	The focus was on the needs of police forces when it comes to SMCS and in particular on the development of the LINKS product: Technologies Library
Organiser	UNIFI; SCIT; PDT	DHPol	FRB; HBR, UCC, UCPH	SIC	SIC	DHPol	SIC

Table 3: Completed LCWs 8-13

0	24 (10.05.2022)	24 (27-28.05.2022)	25 (14.06.2022)	30 (3.11.2022)	33 (3.02.2023)	38 (5.08.2023)
LCWS #	8	9	10	11	12	13
Location	Netherlands	Italy	Denmark	Netherlands	Denmark	Germany
WPs	WP5-7	WP2	WP3	WP5-6-7	WP3	WP6
Cases	Industrial	Earthquake	Flooding	Cross cases	Flooding	Terrorism
Description	<p>Focused on the needs of healthcare professionals and those with a vested interest in the LINKS industrial case. The aim of the LCW was to enhance the disaster resilience of local communities through the implementation of new technologies, such as SMCS, to improve communication</p>	<p>An interactive event focussed on the design of the Feel Safe online platform and aimed to spread awareness on safety and risk management, through an activity with relevant practitioners and children.</p>	<p>The main focus was on the use of SMCS for prevention and during a crisis situation. The organiser presented the preliminary results from the Danish case and conducted group conversations about how to use SMCS to strengthen communication between citizens and public authorities and first responders and what barriers need to be addressed.</p>	<p>The focus was on Investigating the information needs of school directors and students in case of an emergency. Citizen handbook + Feel Safe</p>	<p>Examined a concrete flood scenario, where greater Copenhagen was affected by prolonged rain. The workshop focused on the LINKS product: the resilience wheel. The aim was to investigate whether operations managers, could use the Resilience wheel as a strategic tool.</p>	<p>Focused on the validation and development of the Including Citizens handbook. Stakeholders from various police and civil protection forces from Denmark and Sweden were present and validated the product, as well as suggested minor changes for its improvement.</p>

Organiser	Sitech, VRZL, GGD-ZL	UNIFI, SCIT, PDT	FRB; HBR, UCC, UCPH	ST, VU, VRZL	FRB; HBR, UCC, UCPH	DHPol
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Table 4: Planned LCWs

0	40 (20.09.2023)	41 (02.10.2023)	41 (10.2023)	41 (17.10.2023)	41 (23.10.2023)	41 (10.2023)	41 (10.2023)	42 (11.2023)	42 (11.2023)
LCWS #	14	15	16	17	18	19	20	21	22
Location	Denmark	Netherlands	Denmark	Italy	Netherlands	Denmark	Denmark	Denmark	Denmark
WPs	WP3	WP5-6-7	WP3	WP2	WP5-6-7	WP3	WP3	WP3	WP3
Cases	Flooding	Cross cases	Flooding	Earthquake	Cross cases	Flooding	Flooding	Flooding	Flooding
Description	Focused on the Resilience Wheel with practitioners within crisis management	The workshop will focus on an incident drill at an elementary school	Focused on the Resilience wheel - Frederiksberg municipality	The focus will be on FEEL SAFE	workshop for associations, social institutions, sports clubs, etc. in the Chemelot area.	Flood risk perceptions and action among residents – residents in Frederiksberg Municipality	Dissemination of Links results - utility companies and municipalities	Focus on the Resilience wheel - Hofor utility company	communicating risk and mobilizing volunteers
Organiser	FRB; HBR, UCC, UCPH	ST, VU, VRZL	FRB; HBR, UCC, UCPH	SCIT	ST, VU, VRZL	FRB; HBR, UCC, UCPH	FRB; HBR, UCC, UCPH	FRB; HBR, UCC, UCPH	HBR

Overall, the LCWs play an important role in fortifying the LINKS research by fostering knowledge exchange and synergy among stakeholders, ultimately contributing to the project's success in disaster management and resilience-building. In the final months of the project, the remaining LCWs planned (which will be reported on in D8.6), such as the FEEL SAFE LCW which will take place in October 2023, will aim to ensure the sustainability of the project through the targeting of stakeholders who will become the main contributors to the products.

3.2 LINKS Advisory Committee (LAC)

The LINKS Advisory Committee (LAC) holds a critical position within the overarching LINKS Community. Its composition comprises invited professionals and experts representing diverse stakeholder organizations that align with the target groups of the LINKS project. The primary functions of the LAC encompass advising, informing, and validating the developments and outcomes arising from the project.

The fundamental aim of the LAC is to convene and actively engage multidisciplinary stakeholders, including representatives from associations within the project consortium, with the overarching objective of attaining validated and practical results. To achieve this objective, the LAC conducts extensive discussions on the project's outcomes, with particular emphasis on in-depth integration into the domain of public safety and security. Notably, the LAC convenes at strategic junctures during the project lifecycle to ensure the generation of well-planned and beneficial outputs.

The committee is comprised of select advisors drawn from relevant organizations, collectively representing the majority of the target groups identified in the LINKS project. As of M39, four LINKS Advisory Committee (LAC) meetings have been held. The first LAC meeting, conducted virtually in January 2021, was documented in deliverable D8.4 (First LINKS Community Workshops and LINKS Advisory Committee report), presenting the current composition of the LAC and highlighting key outcomes. The second LAC Meeting was reported on in D8.5 (Second LINKS Community Workshops and LINKS Advisory Committee report). The third, fourth, and fifth LAC Meetings will be reported on in D8.6 (Final LINKS Community Workshops and LINKS Advisory Committee report), which will be published in November, 2023 (M42).

The final LAC activity at the LINKS Final event in Rome will be a valuable opportunity to discuss the sustainability of the LINKS project with the LAC members.

Please find below Table 5 with the LACs described.

Table 5 LACs

DATE	19.01.2021	17.02.2022	13.02.2023	20-22.06.2023	16-18.06.2023
LACs #	1	2	3	4	5
Location	Virtual	Virtual	Virtual	Rotterdam, Netherlands	Rome, Italy
Description	The primary objective of the first Learning Advisory Committee (LAC) was to solicit external insights from an advisor regarding the foundational assumptions of the LINKS Framework and broader matters pertaining to the practical implementation of LINKS concepts, such as governance and vulnerability.	Its primary aim was to elicit valuable feedback pertaining to the concept and content of the LINKS Community Center (LCC), with a specific focus on Disaster Technologies (DCTs), Social Media and Crowdsourcing (SMCS) Guidance documents, and Stakeholder Networks.	The meeting built upon the results of a survey that had previously sent and focussed on the key issues raised. The meeting was divided into three sessions. The first dealt with SMCS Libraries: the Technologies Library, the Use Cases Library, and the Guidelines Library. The second session examined the LINKS Community Center and Feel Safe, whilst the third focused on the feedback of the participants.	A joint ENGAGE/LINKS workshop, which was a valuable opportunity for the LINKS product owners to gain the feedback of an external expert audience who could give new insights into the development of the LINKS products. It was also a valuable opportunity to increase the LINKS community through engaging in synergies with the ENGAGE project and allow the LINKS and ENGAGE Advisory Board members to comment on the results of both projects.	Final LAC Activity: participation of LAC Members to the LINKS Final event October 16-17, 2023.
Organiser	FEU	SIC	FEU; SIC	FEU; SIC	FEU; SIC; EOS

3.3 LINKS Community Center (LCC)

Within the context of the LINKS Community, the LINKS Community Center (LCC) assumes a pivotal role as a facilitator for online knowledge and experience sharing pertaining to the utilization of Social Media and Crowdsourcing (SMCS) in disaster scenarios. As introduced in the deliverable D7.1 (Report about the needs and potentials of the LINKS Community Center), the LCC serves as the technical foundation and virtual meeting point for the online community. The platform effectively hosts the LINKS Framework and most of the products: SMCS Technologies Library, SMCS Use Cases Library, SMCS Guidelines Library, and the Resilience Wheel, as well as links to the others: Feel Safe and the Including Citizens Handbook. As such the LCC acts as one stop shop to access all the LINKS products. Therefore, the platform effectively brings together diverse stakeholders constituting the LINKS Community within a user-friendly and flexible web-based platform, fostering their ability to exchange valuable information and experiences regarding SMCS application in disaster contexts.

Hence, the LCC plays a pivotal role in cultivating a dynamic and vibrant community revolving around the LINKS project and its results. Furthermore, it holds the potential to serve as a valuable instrument in establishing and sustaining the LINKS Community well beyond the temporal confines of the LINKS project, effectively evolving into a recognized resource accessible to the disaster management community.

The LCC was first made accessible in deliverable D7.3 and can be accessed online at <https://links.communitycenter.eu/index.php/Welcome!>. For a more comprehensive understanding of the LCC's conceptual framework and its role in fostering community engagement, please refer to deliverable D7.2 (Concept for the LINKS Community Center), D7.4 (Final demonstrator of the LINKS Community Center), D7.5 (First Report about the online community management and quality assurance), and D7.6 (Final Report about the online community Management and quality assurance), which will be published in November 2023.

In the final months of the project the LCC will play an important role in engaging with the community. As the host of the LINKS Framework and most of the products, the platform will be advertised to the community, through a social media campaign, as well a targeted campaign aimed at the KEY stakeholders who will play a larger role in adding content, such as to the SMCS Technologies Library, SMCS Guidelines Library and SMCS Use Cases Library, as well as suggesting final improvements to the products.

3.4 Risk-management in LINKS activities

Acknowledging potential risks associated with the activities of the LINKS Community is of utmost importance. Taking into account the insights gained from the latest LCWs organized within the LINKS project several potential risks relating to adverse implications for the Community-building process and the strategies to overcome them are displayed. Notably, the key updates since D8.1 and D8.2 pertain to challenges related to obtaining more relevant and product specific feedback Local Community Workshops (LCWs) as well as how to determine the key stakeholders of the project who will help ensure the sustainability of the LINKS results. Please find below Table displaying the Potential risks as well as Mitigation measures.

Table 6 Potential risks and mitigation measures

Potential risks in Community activities	Mitigation measures
Insufficient number of contacts in the database to identify relevant attendees for LINKS Community activities	The strategy entails leveraging partners to access additional contacts and broadening outreach efforts to research relevant contacts at the subnational level.
Community does not attain the desired size	The approach involves intensifying promotion and dissemination activities, refining key messages to ensure a targeted social media campaign to reach potential stakeholders.
Partners are facing difficulties in convincing stakeholders to take on a greater role in ensuring the sustainability of the project	The strategy entails targeting the stakeholders in order to understand the reasons for their reluctance, in order to then adapt the LINKS products to reassure the stakeholder of the added benefit of their involvement
Challenges in gathering pertinent feedback from Local Community Workshops (LCWs) or LINKS Advisory Committee (LAC) meetings	The strategy involves putting more focus on the products and especially on the aspect of the products that product owner wants improved or validated.
Where communication difficulties arise with local stakeholders due to language barriers	The solution revolves around collaborating with local project partners to translate relevant materials into the necessary languages and jointly resolving language-related issues to foster effective communication.
Impossibility of organising in-person workshops due to the COVID-19 pandemic.	Arrange virtual meetings and structure them to foster meaningful interaction between organizers

	and participants. Implement breakout sessions to maintain manageable participant numbers, and provide materials like concept explanations beforehand to alleviate challenges related to the virtual setting.
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The major risk to the Community activities of the project was the effect that the COVID-19 pandemic had on the first two years of the project. The impossibility of organising in-person activities from workshops to attending conferences, negatively impacted the project's ability to build a larger community. Mitigation measures, such as the organization of virtual meetings, and targeted social media campaigns were put in place, however, they could not fully mitigate the negative impact of the pandemic. Another challenge was gathering pertinent feedback from LCWs and LACs. However, this issue was more easily overcome through bringing greater focus to the products themselves and how to improve them. Furthermore, this change was a natural development as the products matured and there were more features to ask experts to test and validate.

4. IDENTIFICATION OF LINKS COMMUNITY STAKEHOLDERS

In D8.2, we presented the target groups for the LINKS project, as specified in the LINKS Grant Agreement (GA), forming the core of the LINKS Community. However, in light of the recommendations put forth in the 'Project Review Report,' this section now presents an updated version of the LINKS target groups. The primary motive behind revisiting the categorization of the project's target groups is to better address their distinct needs and expectations. A comprehensive account of how each target group can contribute to LINKS and the benefits they can derive from participating in LINKS activities is detailed in D9.2 (Updated LINKS dissemination, exploitation and communication strategy 1).

4.1 Practitioners

In the context of the LINKS project, practitioners are defined as individuals who possess the necessary qualifications or official registration to practice within a specific occupation or profession, particularly in fields relevant to the research areas pursued by LINKS. This category includes organizations specialized in providing assistance during emergency situations, such as fire and rescue services, medical emergency services, police, and civil protection forces. Practitioners assume an important role within the LINKS Community as they represent the primary end-users of the project's outcomes. Their early involvement in the research process reflects the project's bottom-up approach, fostering enhanced adoption of project results. Additionally, practitioners will play a critical role in the validation and testing of project findings through their active participation in case studies and contributions to the development of the LINKS Community Center (LCC) and the LINKS Framework.

4.2 Policy and decision-makers

Policy and decision-makers refer to legislative and executive entities functioning at various territorial levels, encompassing local, regional, national, and European spheres, thereby exerting significant cross-sectoral influence. These stakeholders are closely intertwined with the LINKS Community due to the shared responsibilities they hold, such as shaping risk communication policies or making decisions concerning the implementation of e-Government services that facilitate disaster risk management. Their active participation within the Community yields multiple benefits, as it ensures that the scientific evidence and outcomes generated by the project actively contribute to bolstering the resilience of European Union communities. By involving policy and decision-makers, the project can effectively inform and influence key strategies and actions related to disaster management, ultimately leading to more informed and robust policy implementations that address the evolving challenges faced by communities in the EU.

4.3 Local Communities

Within the context of the LINKS project, local communities are defined as cohesive groups bound together by social and organizational ties at the local level, stemming from shared interests, values, and necessities. This category encompasses a diverse array of local associations actively involved in providing support to vulnerable groups, such as individuals with hearing or visual impairments, and the elderly, among others. However, it is important to note that this definition is not restrictive, as local communities may manifest in various other forms beyond those specified.

4.4 Businesses

The objective of the LINKS Community is to actively involve industrial bodies and private sector manufacturers that hold relevance to the research and activities pursued within the project. This involvement is essential to gain insights into the deployment practices of pertinent goods and services. In pursuit of this objective, the LINKS Networks Database is being utilized to identify sectoral and hazard-specific business networks. The identified networks encompass a diverse range of enterprises, including small, medium, and large companies actively engaged in areas pertinent to the LINKS research, such as disaster resilience, critical infrastructure protection, technologies, public transport, energy, and water management, among others. The Consortium recognizes that the active engagement of these stakeholders can prove highly beneficial for the LINKS Community, particularly concerning the adoption and utilization of the project's outcomes. Collaborating with these industrial and private sector entities enables a more comprehensive understanding of real-world practices, leading to enhanced implementation and uptake of the project's results.

4.5 Developers

The category of "Developers" within the LINKS Community comprises individual researchers, universities, and academic groups actively engaged in diverse aspects of disaster resilience or other relevant fields like crisis management, social sciences, technology, and more. Their role is critical as they offer valuable feedback on the validity of LINKS concepts, research methodologies, and outcomes, including the assessment and refinement of the LINKS Community Center (LCC) and the LINKS Framework. The insights and expertise provided by these developers ensure the robustness and effectiveness of the project's initiatives, enhancing their overall impact and relevance in addressing contemporary challenges related to disaster management and resilience.

4.6 Civil Society

Within the LINKS project, the "Civil Society" category addresses the needs of vulnerable groups, encompassing individuals with communication challenges such as visual or hearing impairments,

along with the elderly and youth. Additionally, concerns extend to religious minorities that might be susceptible to terrorist threats, as observed in cases like Germany. Furthermore, the roles of digital volunteers and initiatives driven by citizens and science are recognized for their potential in offering valuable assistance during times of crisis. This includes members of Virtual Operations Support Teams and other ad-hoc and voluntary participants from local communities. Considering the local focus of the LINKS project, Civil society stands as one of the primary groups that will be directly impacted by the project's research, particularly through the case studies conducted. The involvement of Civil Society in the LINKS Community is highly beneficial on multiple fronts. Firstly, it enhances the research process by incorporating valuable insights and perspectives from the citizens who are at the forefront of crisis situations. Secondly, this involvement contributes to bolstering the resilience of European Union communities, as the project can better address the real-life concerns and needs of the local populace. Finally, engaging feedbackers ensures that public sentiments, concerns, and aspirations related to the LINKS project are attentively received and thoughtfully incorporated by the Consortium, promoting a more inclusive and responsive approach to disaster management and community resilience.

4.7 Media

Media outlets and platforms responsible for disseminating information concerning disaster management and civil protection are very important to the project. As a result, they constitute a significant target group for the LINKS project, given their potential contribution to the wide distribution of the scientific evidence and project outcomes developed within LINKS. Additionally, disseminators play a critical role in offering feedback on the utilization of Social Media and Crowdsourcing (SMCS) for communication purposes during disaster situations. Their active involvement in the LINKS Community can lead to a more effective and widespread communication of research findings and project results, ultimately enhancing the overall impact and awareness of disaster management strategies and approaches.

5. LINKS COMMUNITY ENGAGEMENT

This section aims to elucidate the objective behind engaging with the LINKS Community and the various approaches utilized by LINKS partners to interact with its members. Furthermore, it offers an outline of the LINKS Community engagement roadmap and highlights the principal activities conducted up to M39, marking significant milestones in the project's journey of community engagement.

5.1 How do LINKS partners engage with the Community

As detailed in D8.1 and D8.2, the LINKS project adopts the Spectrum of Public Participation, a framework formulated by the International Association for Public Participation (IAP2) to engage with external stakeholders. The spectrum encompasses various levels of involvement, ranging from informing to empowering stakeholders. The adapted framework consists of three key levels: Informing, Consulting/Involving, and Empowering, reflecting the specific aims and objectives of the LINKS Community within the project.

The phases designed to ensure stakeholder participation within the LINKS Community are outlined below:

- **Informing:** As per the IAP2 guidelines, informing entails furnishing stakeholders with impartial and objective information to aid their comprehension of the problem, alternatives, opportunities, and potential solutions. The informing phase commenced in M5 (October 2020) and was the focus for 7 months until M12 (May 2021) in the context of the LINKS project. As the project developed and entered the second phase, activities related to informing the stakeholders continued but become secondary to the Consulting/involving objectives.
- **Consulting/Involving:** Drawing from the same source, consulting involves seeking public feedback on analyses, alternatives, and decisions, while involving entails collaborating directly with the identified stakeholder throughout the process to consistently grasp and consider their concerns and aspirations. The LINKS partners have the opportunity to engage in both consulting and involving the Community throughout the project's duration, facilitated by diverse tools. The consulting/involving phase commenced at M12 (May 2021) and will persist until the end of the project. However, it's objectives will become secondary to those of the Empowering phase.
- **Empowering:** Empowering pertains to granting greater decision-making authority to the stakeholders. In other words, it entails applying the suggestions of the stakeholders and implementing changes to the LINKS products based on their decisions, as a result giving the stakeholders a sense of ownership over the results and encouraging the sustainability of the

products. However, the LINKS partners will still retain the final decision-making power over the products, at least until the termination of the project. Involving external participants, including citizen stakeholders, provides a degree of empowerment to these stakeholders. This not only aligns with the project's diversity-by-design approach but also enhances the impact of LINKS solutions and research outcomes. The empowering phase is set to begin at M38 (July 2023) and continue until M42 (November 2023) within the LINKS project.

5.2 LINKS Community Engagement Roadmap

In this section, we provide a comprehensive overview of the activities that have been undertaken, as well as those that are scheduled for each phase of the LINKS Community engagement roadmap: Informing, Consulting/Involving, and Empowering. We outline the completed activities, detailing their outcomes, and also highlight the upcoming initiatives planned within each phase to ensure a transparent and inclusive approach to engaging with the LINKS Community.

5.2.1 Phase 1 Informing: Promoting the LINKS Community

Phase 1 is dedicated to raising awareness about the LINKS project and its LINKS Community among the targeted stakeholders.

The informing phase initiated at M5 (October 2020) was the focus for 7 months until M12 (May 2021). As the project developed and entered the second phase, activities related to informing the stakeholders continued but become secondary to the Consulting/involving objectives.

Target Audience: Throughout this phase, the LINKS project reached out to targeted stakeholders to apprise them of the LINKS project's vision and progress.

Activities Undertaken: To launch this phase, the following activities were executed:

- Establishment of LINKS Social Media Accounts: Twitter, Facebook, and LinkedIn accounts were set up to engage with the stakeholders effectively.
- Development of Promotional Materials: Promotional materials, such as flyers and brochures, were created to disseminate information about the project.
- Launch of Operational LINKS Website: The LINKS website was made operational, serving as a comprehensive platform for accessing project-related information.
- Formation of a Flexible Workshop Plan: A Workshop Plan was devised for the forthcoming six months and made available in D8.4, offering an outline of planned workshops and engagements.
- Production and Distribution of LINKS Newsletters: Four LINKS Newsletters were crafted and shared through the project website.

These activities during Phase 1 served the purpose of informing and engaging the targeted stakeholders, fostering a well-informed and connected LINKS Community for the successful advancement of the project.

5.2.2 Phase 2 Consulting/Involving: Engaging with LINKS

Phase 2 represents a major stage of the project, as it involves soliciting feedback from the targeted stakeholders to validate and refine the project's concepts and outcomes.

Phase 2 commenced at M12 (May 2021) and will continue until the end of the project M42 (November 2023).

Target Audience: All targeted stakeholders, taking into account their diverse backgrounds and domains of expertise, play a significant role in this phase.

Activities Undertaken and Ongoing:

- Organization of LINKS Community Workshops: 13 LINKS Community Workshops (LCWs) have been conducted so far, which have been essential for the enlargement of the community and for collecting feedback for the validation and development of the products (see section 3.1 for more).
- Organization of LINKS Advisory Committee Meetings: 3 virtual meetings of the LINKS Advisory Committee (LAC) have been held - the first on 19 January 2021 and the second on 17 February 2022, third in February 2023, and one in person meeting in June 2022 (see section 3.2 for more).
- Creation and updating of the LINKS Community Center: The first demonstrator of the LINKS Community Center (LCC) has been made available in D7.3 (Kiehl, Habig & Marterer, 2021) and can be accessed online at <https://links.communitycenter.eu/index.php/Welcome!> and has been continuously improved since then.
- Creation of the LINKS Framework: The first version of the LINKS Framework (D5.3) was made accessible at M21 (February 2022). The Second version of the LINKS Framework (D5.4) was published in M30 (November 2022), and the Final version of the LINKS Framework (D5.5) has just been published in M38 (July 2023).
- Case Activities: including interviews, surveys, videos play a vital role in engaging external stakeholders and enhancing the LINKS research.
- Day-to-day Communication Activities: Continuous communication activities involve moderating social media channels, updating the project website, and publishing public deliverables. Additionally, relevant publications by project partners are made accessible through the website.

Throughout Phase 2, the project actively involves stakeholders, fostering an interactive and collaborative environment for the validation and improvement of the LINKS products.

5.2.3 Phase 3 Empowering: LINKS Sustainability

This marks the concluding phase of the project, focusing on the validation of project outcomes by the targeted stakeholders.

Duration: The final phase is scheduled to commence at M38 (July 2023) and conclude at M42 (November 2023).

Target Audience: All targeted stakeholders will be actively involved in this phase.

Main Activity:

- Organizing the last set of LCWs, specifically designed to obtain external validation of the project results and ensure their sustainability. These workshops will serve as crucial platforms for stakeholders to provide their feedback, insights, and endorsement, affirming the value and applicability of the project's accomplishments. Through their participation, the stakeholders will play an instrumental role in validating the project outcomes, thus reinforcing their significance and utility within the broader context of disaster resilience and management. Additionally, these workshops will lay the foundation for the long-term continuity and utilization of the project results beyond the project's conclusion, further enhancing their impact on disaster management practices and fostering a lasting LINKS Community legacy.
- Targeting of stakeholders and differentiating them between three categories: *Informed stakeholders* – Stakeholders who are aware of the project but have not shown direct interest in using the products. *Users* – Stakeholders who have accessed the LCC and have begun to use the products. *Contributors*– Stakeholder who will provide contributions and expert knowledge for the sustainability of the LINKS products.
- Engaging in joined dissemination and exploitation opportunities with relevant networks. This includes joined promotion of results with other projects, networks, and platforms, and potential integrations of results with relevant initiatives.

6. THE COMMUNITY

In this section, we outline the procedures and tools devised by the Consortium to develop and maintain the LINKS Community. These measures were put in place to ensure the active involvement of diverse stakeholders from various disciplines in the developmental, testing, and evaluation processes of the LINKS project outcomes. The comprehensive procedures and tools were designed to foster a collaborative and inclusive environment, promoting meaningful engagement and valuable contributions from the participating stakeholders.

6.1 LINKS Community Database

From M4 (September 2020) onwards, the Consortium initiated the establishment of a comprehensive database known as the "LINKS Community Database." This database serves as a repository to collect the contact information of pertinent individual stakeholders who, based on their personal backgrounds and areas of expertise. Each project partner diligently conducted surveys and investigations within their respective networks, carefully selecting the contacts deemed most pertinent, aligning with the project's objectives and research domains.

The LINKS Community Database stands as a principal resource for identifying external stakeholders directly relevant to the LINKS project. Throughout the project's duration, this database will undergo continuous updates, ensuring its alignment with the evolving needs of the project partners at different stages of the project's life cycle. At month 39, the database presently comprises 225 individual stakeholders. The format of the database was outlined in the Annex of D8.2. While the database was created according to the specifications, its intended usage did not materialize as several entries found their way into the Networks database, and certain individuals from the list subsequently joined the Learning Advisory Committee (LAC). However, the key stakeholders have been actively engaged in project undertakings, and have provided and will continue to provide valuable insights and feedback on the project outcomes.

6.2 LINKS Networks Database

The establishment of the LINKS Networks Database³ was prompted by a key recommendation in the 'Project Review Report' – the inclusion of sectoral, hazard-specific stakeholders, and SMCS producers in the LINKS Community.⁴ This invaluable tool enables the Consortium to identify and connect with national and European sectoral networks that hold relevance to the LINKS research domains, representing the project's primary target groups. Notably, the database encompasses a

³ https://links.communitycenter.eu/index.php/Overview_of_Networks

⁴ <https://links.communitycenter.eu/index.php/Welcome!>

diverse array of stakeholders, including small, medium, and large companies engaged in critical infrastructure protection, social media and technologies, energy, public transport, and water management.

The primary purpose of engaging with these stakeholders is twofold: first, to involve them in the rigorous testing and evaluation of the project's results, and second, to effectively disseminate the research outputs of LINKS to a broader audience. Currently, the LINKS Networks Database comprises over 200 entities, and the process of systematically reaching out to these entities remains an ongoing activity. The outcomes of these engagements are documented and reported in deliverable D7.7: First Report about the relation to other networks and will be updated in the Final Report (D7.8) about the relation to other networks, which will be submitted in November (M42).

6.3 External requests

In addition to the previously outlined tools, the Consortium developed an online survey to enable external stakeholders to autonomously express their interest in becoming part of the LINKS Community. This survey was established during M10 and can be accessed through the following link:

<https://ec.europa.eu/eusurvey/runner/LINKSLCCSurvey2021>

The primary objective of this survey was to ascertain the sector and level of activity of external stakeholders who express their interest in joining the LINKS Community. Furthermore, the survey captured their expected contributions to the project as well as their specific expectations from it. Through this mechanism, the Consortium gained valuable insights into the diverse perspectives and potential involvement of external stakeholders, fostering a dynamic and inclusive engagement within the LINKS Community.

6.4 Stakeholder Analysis

The identification of relevant stakeholders is only the first step. Equally critical is the analysis of their interests and motivations to actively participate in LINKS Community activities, along with the valuable knowledge and expertise they bring to enhance the LINKS research.

This stakeholder analysis is an ongoing process, integrated into various LINKS activities, such as LCWs. The insights and findings from this analysis, along with the key messages used to communicate with the Community members are found below:

The key objectives of conducting a stakeholder analysis include:

- **Identification:** Identifying all the stakeholders involved or affected by the project or organization.
- **Mapping:** Mapping out the relationships between the stakeholders and the project or organization.
- **Understanding:** Gaining insights into the interests, needs, expectations, and potential risks associated with each stakeholder.
- **Prioritization:** Prioritizing stakeholders based on their level of influence and importance to the project's success.
- **Engagement:** Developing appropriate strategies to engage and communicate with stakeholders effectively.
- **Mitigation:** Identifying potential conflicts, risks, or challenges that may arise from stakeholder involvement and finding ways to mitigate them.

By conducting a stakeholder analysis, the project can make informed decisions, improve stakeholder engagement, and develop effective communication and management strategies to ensure the success and sustainability of their initiatives. It is a valuable tool for understanding the broader context and dynamics surrounding a project and managing relationships with various stakeholders to achieve positive outcomes.

The following outlines the Stakeholder Analysis for the LINKS Project per Target Group:

Practitioners:

- **Interest:** As end-users of project results, practitioners have a keen interest in the development of practical tools and guidelines for using social media and crowdsourcing in disaster management.
- **Influence:** Practitioners' expertise and involvement in case studies and LCWs play a significant role in shaping the project's outcomes and ensuring real-world applicability.
- **Expectations:** Practitioners expect actionable insights and user-friendly resources that enhance their disaster response capabilities.

Policy and Decision-Makers:

- **Interest:** Policy and decision-makers seek evidence-based approaches and research outcomes that inform disaster risk communication policies and e-Government implementations.
- **Influence:** Their decisions impact the adoption of LINKS solutions in disaster management frameworks at local, regional, and national levels.

- Expectations: Policy and decision-makers expect tangible policy recommendations and frameworks to enhance community resilience.

Local Communities:

- Interest: Local communities have a direct stake in disaster resilience and seek to benefit from improved communication and information exchange during crises.
- Influence: The engagement and participation of local communities contribute to the contextualization and validation of project outcomes.
- Expectations: Local communities expect to have the needs of vulnerable groups to be taken into account through practical and accessible tools for disaster communication and collaboration.

Businesses:

- Interest: These stakeholders are interested in the integration of social media and crowdsourcing technologies to enhance their disaster resilience and critical infrastructure protection efforts.
- Influence: Their expertise and engagement in case studies and LCWs help in refining project results and ensuring industry relevance.
- Expectations: Industrial bodies and private sector manufacturers expect innovative solutions and technologies that enhance their disaster preparedness and response capabilities.

Developers (Researchers, Universities, Academic Groups):

- Interest: Developers seek opportunities to contribute to cutting-edge research in disaster resilience and related fields.
- Influence: Their expertise and validation of the LINKS Framework and LCC enhance the credibility and robustness of the project's scientific foundation.
- Expectations: Developers expect collaboration opportunities and recognition for their contributions to the LINKS research.

Civil Society (Citizens and Virtual Operations Teams):

- Interest: Civil Society is motivated by their commitment to those vulnerable groups with communication difficulties, e.g., people with visual or hearing impairment, elderly and young people.
- Influence: Their involvement and input in case activities and LCWs ensure a bottom-up approach and improved community engagement.
- Expectations: Civil society expect its voice to be heard and considered in the project's decision-making processes.

Media:

- **Interest:** Disseminators are interested in promoting and sharing information about disaster management and civil protection.
- **Influence:** Their engagement facilitates the widespread dissemination of LINKS research findings and recommendations.
- **Expectations:** Disseminators expect clear and compelling communication materials to effectively convey project results.

By understanding the interests, influence, and expectations of these target groups, the LINKS project, especially WP9 can tailor its communication and dissemination activities by keeping in mind the interests, influence, and expectations of the target groups when addressing them, such as in the Social Media Campaign.

7. SUSTAINABILITY OF THE LINKS COMMUNITY

This section outlines the strategies to ensure the long-term sustainability of the LINKS Community. As highlighted earlier, the Community aims to evolve into a valuable resource not only for the project partners but also for its members. Additionally, its primary objective is to continue functioning beyond the duration of the project, serving as a lasting platform for exchanging knowledge, best practices, and experiences related to the use of social media and crowdsourcing (SMCS) in disaster management.

The LINKS Community Center (LCC) serves as the primary tool for fostering the sustainability of the Community. As described in section 4.4, the LCC acts as the technical foundation and central hub for the online community, facilitating the exchange of information and experiences among diverse stakeholders (the LINKS Community). It allows them to access the results and provide suggestions for the improvements of the LINKS project. The LCC's development is driven by the goal of establishing ongoing dialogue and obtaining feedback from a broader stakeholder community, irrespective of their physical presence at the case sites.

Crucially, the LCC is designed to remain active beyond the project's duration, ensuring the sustainability of the LINKS Community. During the project's closing phase, the (LCC) will assume a vital role in community engagement. The platform will be promoted to the community via a dual strategy, encompassing a social media and a targeted campaign directed at crucial stakeholders. These stakeholders will play an important role in adding content to the LCC, such as to the SMCS Technologies Library, SMCS Guidelines Library and SMCS Use Cases Library, as well as suggesting final improvements to the products.

To achieve this sustainability, the following actions are planned and ongoing:

- Focusing on targeting key stakeholders who have already shown interest in the LINKS products in order to convert them *Users* – Stakeholders who have accessed the LCC and have begun to use the products, and *Contributors*- Stakeholder who will provide contributions and expert knowledge for the sustainability of the LINKS products. This will be achieved through a targeted social media campaign where the Key stakeholders will be tagged.
- Engaging in joined dissemination and exploitation opportunities with relevant networks. This includes joined promotion of results with other projects, networks, and platforms, and potential integrations of results with relevant initiatives. This will be accomplished through collaboration and attendance to LINKS workshop, webinars such as the Webinar on Integration of Social Media Information with Legacy Platforms scheduled for the 7th of September 2023, and events such as the Final Event in Rome (16 -17 October 2023).

- Considering integration with wider networks: Exploring possibilities to conceptually or technically integrate the LCC within larger networks like the EU Knowledge Network or CMINE or VOST can enhance its reach and impact.
- Open interfaces and data formats: Implementing open interfaces and data formats will ensure that the content within the LCC is portable and not restricted to specific platforms, promoting wider access and usage.
- Minimizing operational and administrative overhead: Steps will be taken to minimize the operational and administrative burden of managing the LCC, enabling seamless and efficient functioning.
- Bringing LINKS community members and products into future EC funding projects, such as those which are part of the Societal Resilience Cluster, allowing these projects to build upon the results and knowledge of the LINKS project.

In addition to the LCC, the LINKS Community Workshops (LCWs) and the LINKS Advisory Committee (LAC) are also instrumental in ensuring Community sustainability, albeit within the project's timeframe. The relationships forged through LCWs and LAC, along with the knowledge developed in these interactions, will contribute to maintaining the LINKS Community as a valuable resource for stakeholders involved in or affected by SMCS in disaster management, even beyond the lifespan of the project.

8. CONCLUSION

This report serves as the final and updated version of the LINKS Community Strategy (D8.1) and of the Updated LINKS Community Strategy 1 (D8.2). The deliverable plays a role in fostering the engagement of key stakeholder target groups. Its main objectives are to maximize the project's impact and ensure widespread adoption of its results.

The document commences by highlighting the major updates since D8.2. Subsequently, it offers an extensive overview of the LINKS Community, reiterating its general and specific objectives. Moreover, it assesses our progress towards achieving the LINKS Community objectives at M39 and outlines the current composition of the community.

Additionally, the deliverable summarises the role of the LCWs and LACs held so far and their contributions to growing the community.

The purpose of engaging with the LINKS Community is elucidated, along with a roadmap detailing how the Consortium has engaged and plans to engage with the LINKS target groups. It outlines the significant activities conducted thus far and those scheduled for the future.

Given the paramount importance of ensuring the sustainability of the LINKS Community beyond the project's lifecycle, this report also proposes specific actions to secure its enduring presence. It underlines the significance of the LINKS Community's continuity as a valuable resource, enabling continued knowledge sharing, good practices, and experiences related to social media and crowdsourcing (SMCS) in disaster management.

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