



# LINKS

Strengthening links between technologies and society  
for European disaster resilience

## D8.2 UPDATED LINKS COMMUNITY STRATEGY 1

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, 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)

Bringing together 15 partners and 2 associated partners across Europe (Belgium, Denmark, Germany, Italy, Luxembourg, the Netherlands) and beyond (Bosnia & Herzegovina, Japan), the project will develop a framework to understand, measure and govern SMCS for disasters. The LINKS Framework consists of learning materials, such as scientific methods, practical tools, and guidelines, addressing different groups of stakeholders (e.g. researchers, practitioners, and policy makers). 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 present deliverable (D8.2) consists of an updating of the LINKS Community Strategy (D8.1), submitted at M4 (September 2020). Its main purpose is to provide an updated overview of the strategy and the objectives of the LINKS Community, and, where possible, a provisional assessment of our progress towards the objectives for the LINKS Community. The creation of a sustainable stakeholder community - the LINKS Community - is in fact one of the primary objectives of the LINKS project. Said Community consists of multidisciplinary stakeholders from several countries, professions and schools of thoughts, working together with the LINKS Consortium, learning and benefiting from the project development and results, and in turn providing their knowledge and expertise for the improvement of 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 TERMS<sup>1</sup>

Term	Definition
LINKS Advisory Committee (LAC)	Invited professionals and experts from relevant organizations (representing practitioners, researchers, and citizens) that advise, inform and validate developments and results in the project.
LINKS Community	A sustainable stakeholder community consisting of multidisciplinary stakeholders from several countries, professions and schools of thought. The main stakeholders involved in the LINKS Community are: practitioners, policy and decision-makers, local communities, businesses, developers, feedbackers, and disseminators.
LINKS Community Center (LCC)	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 Community Workshops (LCWs)	Workshops for capacity-building at the local level, conceived as a means to foster knowledge and experience exchange within the Community. They are organised locally by partners and are crucial for communicating information regarding the project's objectives and scope, for exchanging good practices among different stakeholders on the use of SMCS in disasters, and for the development, testing and validation of project's results.
LINKS Framework	A set of learning materials, such as methods, tools and guidelines for enhancing the governance of diversity among the understanding of SMCS in disasters for relevant stakeholders. Methods in LINKS refer to approaches that will enable researchers and practitioners to assess the effects of SMCS for disaster resilience under diverse conditions. Tools are practical instruments supporting first-responders, public authorities and citizens with the implementation of SMCS in disaster and security contexts. Guidelines are recommendations for improving national and regional governance strategies on SMCS as well as introductions and explanations of how to apply the methods and tools under diverse conditions.
LINKS Knowledge Domains	The three crucial domains of analysis for studying European disaster resilience and SMCS. These include:

<sup>1</sup> Definitions are retrieved from the LINKS Glossary (forthcoming).



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|--|---|
|  | <ul style="list-style-type: none"><li>- 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.</li><li>- Disaster Management Processes (DMP) for analysis of how SMCS changes the procedures and processes within the crisis and disaster management.</li><li>- Disaster Community Technologies (DCT), for assessing SMCS related technologies used by practitioners (and citizens) in disasters.</li></ul> |
|--|---|

## 1. INTRODUCTION

The creation of a sustainable stakeholder community - the LINKS Community - is one of the primary objectives of the LINKS project. As introduced in the deliverable D8.1: LINKS Community Strategy (Philpot & Reuge, 2020), the LINKS Community consists of multidisciplinary stakeholders from several countries, professions and schools of thoughts, working together in LINKS, learning and benefiting from the project development and results and in turn providing their knowledge and expertise for the improvement of LINKS research. The LINKS Community is therefore conceptualized as the partners within the consortium and external stakeholders working collaboratively to better understand, investigate and produce new knowledge on the use of social media and crowd sourcing (SMCS) in disasters.

This deliverable represents an update of the LINKS Community Strategy (D8.1), that was submitted at month (M) 4 (September 2020). The document provides an overview of the Strategy and an assessment of our progress towards the objectives for the LINKS Community at M25.

The main updates since D8.1 are listed below:

- general objectives for the LINKS Community have been revisited to consider and emphasize the empowerment of the LINKS target groups the Consortium intends to achieve through the Community;
- after meeting the criteria of the LINKS Community assessable at M25, some criteria for objectives moving forward have been redefined. In particular, we are from now on concentrating on who is actively contributing to the project's results, and specifically to the LINKS Framework;<sup>2</sup>
- an updated suggested format for the LINKS Community Workshops (LCWs) is presented, readapted based on the experience of the first set of workshops organised in LINKS so far;
- a document identifying the project partners' roles in the organisation of an LCW is also presented, as well as an updated risk-management plan for LINKS Community activities;
- a revisited categorization of the LINKS Community's target groups is introduced;
- concrete actions to ensure the sustainability of the LINKS Community Center (LCC)<sup>3</sup>, and in turn that of the LINKS Community, are provided.

The report is structured as follows:

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<sup>2</sup> The LINKS Framework consists of different learning materials, such as scientific methods, practical tools, and guidelines, addressing different groups of 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).

<sup>3</sup> The LCC acts as the web-platform facilitating online sharing, sustainable advanced learning, and integrating lessons learned, good practices, ongoing experiences and knowledge within the LINKS Community.

- Section 2 provides an overview on the LINKS Community, introducing and revisiting its general and specific objectives.
- Section 3 presents the current composition of the LINKS Community. An updated suggested format of the LCWs, and the identification of the project partners' roles in the organisation and planification of the LCWs is provided as well.
- Section 4 introduces a revisited categorization of the target groups that are intended to form the core of the LINKS Community.
- Section 5 explores the purpose of engagement with the LINKS Community, provides an overview on the LINKS Community engagement roadmap, and presents the main activities performed until M25.
- Section 6 presents the main tools and procedures established within the Consortium to build the LINKS Community.
- Section 7 introduces the ways for ensuring the sustainability of the Community beyond the project's lifetime.

## 2. OVERVIEW ON THE LINKS COMMUNITY

As mentioned in the introduction, the LINKS Community is one of the main outputs of the project and is intended to endure even after the formal end of the project. The LINKS Community is an integral part of the project, and in order to ensure its potential is used for the greatest impact on the project, objectives were identified to guide the LINKS Community's role and actions. The next section explores the objectives and their expected gains, providing an update of the Community's general objectives presented in Deliverable D8.1.

### 2.1 Objectives for building the LINKS Community

The overall goal for the LINKS Community is to build a multidisciplinary Community to exchange information and provide feedback in the project, to understand stakeholders needs and experiences, and subsequently implement these into research towards improvements. At the same time, by engaging with the LINKS Community, external stakeholders have the opportunity to actively contribute to the development and sustainability of the LINKS results. Stakeholder engagement is at the core of the strategy for building the LINKS Community, and to ensure the strategy is most effective, general objectives (Section 2.1.1) and specific objectives (Section 2.1.2) are revisited and elaborated on in terms of the progress.

#### 2.1.1 General objectives for the LINKS Community

This section introduces and revisits the general objectives for the LINKS Community, which are a stepping-point for the Community's specific objectives. In the first LINKS Community Strategy, released under the Deliverable D8.1, the Consortium identified five main general objectives for the LINKS Community. These objectives are:

- to gather information about LINKS stakeholders' needs and requirements;
- to verify and improve LINKS research through ongoing expert feedback and input to LINKS research results;
- to boost awareness of LINKS' research and successes at all levels (local, national, European, international);
- to extend and enhance LINKS' reputation by sharing research results with the LINKS Community;
- to intensify the LINKS Community's impact through efficient and personalised communication with stakeholders.

During the course of the project, the general objectives for the LINKS Community have been revisited to consider and emphasize the empowerment of the LINKS target groups the Consortium intends to achieve through the Community. The revisited general objectives, replacing those described above, are listed below:

- to provide participants with a first-hand insight into the developments of the project and to offer them the opportunity to contribute to the project's research findings.

The rationale behind this objective is to empower external stakeholders by ensuring that the project's developments and findings feed into their practice, ultimately allowing them to improve their work or that of their organization.

- the LINKS Community is used as a platform to facilitate and harness the sharing of information, knowledge, and good practices on the use of social media and crowdsourcing (SMCS) for disaster resilience.

This revisited objective aims to ensure the LINKS Community becomes an established resource that the disaster management community can call upon.

- to connect with other relevant communities and networks at the EU-level and beyond.

Through this revisited objective the LINKS Consortium aims to ensure the knowledge and the scientific evidence produced in LINKS are exploited by external stakeholders, ultimately contributing to the enhancement of local communities' resilience.

- to outlive the research project.

The aim is to ensure the LINKS Community remains a valuable tool for different types of stakeholders dealing with, or affected by, SMCS in disasters even beyond the project's lifetime.

Each of these revisited objectives drives, and will continue to drive, the LINKS Community Strategy over the course of the project.

### 2.1.2 Specific objectives for the LINKS Community

The LINKS project has four specific objectives, three of which relate specifically to the LINKS Community.<sup>4</sup> For each of the three specific objectives several criteria that are relevant to the LINKS Community were identified in the Grant Agreement (GA) and presented in the D8.1. These criteria form the basis for the assessment of the performance of the LINKS Community. By achieving these criteria, the LINKS Community will help achieve the related project's objectives. The table below presents the specific objectives for developing the LINKS Community and the respective criteria for assessment as identified in the D8.1, and it provides an assessment of our progress towards the objectives for the LINKS Community at M25.

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<sup>4</sup> Objective 2 as identified in the GA was not included here as it is not directly relevant to the Strategy and actions of the LINKS Community.

**Table 1: LINKS Project specific objectives and assessment at M25**

Specific Objective	Specific objective met if:	Criteria for assessment	Assessment at M25
Specific objective 1: Sustainable advanced learning on SMCS in disasters.	Knowledge is not only shared but acted upon, meaning that methods, tools and guidelines in relation to SMCS in disasters are used by different groups of stakeholders within the LINKS Community (e.g. methods by developers, socio-technical tools by practitioners).	<p><b>Criterion 1:</b> at least 50 members of the LINKS Community are present by M18.</p> <p><b>Criterion 2:</b> of the 50 members, at least 30 are from the countries where the case studies will take place, representing all target groups that are included in the LINKS Community.</p>	These two criteria are met: around 250 individual stakeholders, representing all LINKS target groups, can be considered as members of the Community, either because they have participated in LINKS activities (e.g. LCWs, LAC meetings, etc.), or because they have expressed their interest in the LINKS project (e.g. through the survey for expression of interest presented in section 6.3 or by subscribing to the LINKS newsletter). Of the 250 members of the LINKS Community, more than 190 are from the countries where the case studies take place.
Specific objective 3: Govern the diversity of SMCS in disasters.	An improved governance of diversity, an improved understanding, and a proper use of SMCS in disasters is reached.	<p><b>Criterion 1:</b> the LINKS Framework is developed through the 'diversity by design' approach.</p> <p><b>Criterion 2:</b> the LINKS Framework is flexible enough to be applied and evaluated in five different</p>	Criterion 1 is met since the LINKS Framework is actually being developed through the 'diversity by design' approach. This is found both in the makeup of the LINKS consortium, that brings together e.g. researchers and

		<p>socio-cultural cases and is validated by professionals and experts through the LCC and the LAC.</p>	<p>practitioners in the field of disaster resilience, and in the activities carried out in the diverse cases, that provide crucial inputs for the development of the Framework and those of its components.</p> <p>Criterion 2 cannot be assessed at M25, since the LINKS Framework is still in its design phase. Further updates for this criterion will be available in the Updated LINKS Community Strategy 2 (D8.3), due at M39.</p>
<p>Specific objective 4: Bring multidisciplinary SMCS stakeholders together.</p>	<p>The Community covers and addresses several sets of stakeholders with different background and fields of expertise across Europe.</p>	<p><b>Criterion 1:</b> at least 250 members, representing all target groups, are part of the LINKS Community by the end of the project (M42).</p> <p><b>Criterion 2:</b> at least 30 members of the LINKS Community, representing all stakeholder groups, are from the countries where the case studies will take place.</p>	<p>Criterion 1 and 2 cannot be assessed at M25 since the LINKS Community is still under construction. Further updates for these criteria will be available in the Updated LINKS Community Strategy 2 (D8.3), due at M39.</p>

After meeting the criteria of the LINKS Community assessable at M25, we have redefined some criteria for objectives moving forward. In particular, we are from now on concentrating on who is actively contributing to the project's results, and specifically to the LINKS Framework.<sup>5</sup>

The table below presents some new targets that we expect to achieve by the end of the project. These targets will be used to assess the performance of the LINKS Community in relation to the project's objectives in the Updated LINKS Community Strategy 2 (D8.3), at M39.

Compared to the table above, objectives 1 (sustainable advanced learning on SMCS in disasters) and 3 (govern the diversity of SMCS in disasters) are now combined since they are interrelated, as are the criteria for meeting them. Moreover, following the recommendations from the 'Project Review Report', an envisaged ratio for the practitioners target group in the LINKS Community at the end of the project is presented in relation to objective 4 (bring multidisciplinary SMCS stakeholders together).

**Table 2: LINKS Project specific objectives and updated criteria for assessment at M39**

Specific Objective	Specific objective met if:	Criteria for assessment at M39
1: Sustainable advanced learning on SMCS in disasters.  3: Govern the diversity of SMCS in disasters.	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.	<b>Criterion 1:</b> at least 50% of the 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.  <b>Criterion 2:</b> at least 25% of the members from the different target groups in the LINKS Community are using the Framework by M42.
4: Bring multidisciplinary SMCS stakeholders together.	The Community covers and addresses several sets of stakeholders with different	<b>Criterion 1:</b> practitioners represent at least two thirds <sup>6</sup> of the Community's members at M42.

<sup>5</sup> By contributing to the LINKS Framework, we refer to the practice of providing valuable inputs, sharing contextualized knowledge and expertise for the improvement of said result. This can be done via the LCC, the LINKS cases, the LCWs, and the LAC.

<sup>6</sup> The rationale behind this envisaged ratio is that the Consortium considers practitioners as the most relevant target group both for the development and uptake of the project results.



	background and fields of expertise across Europe.	
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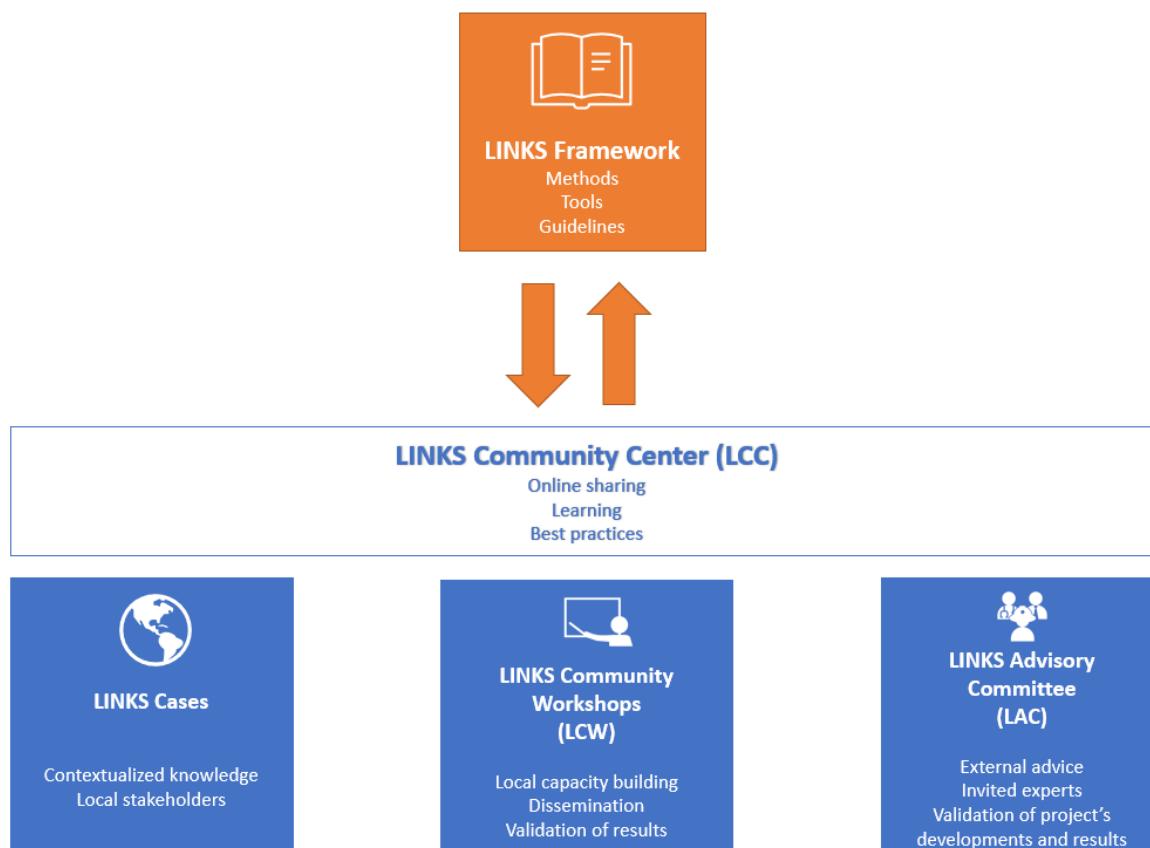
### Key Takeaways from this Section

- General objectives for the LINKS Community were revisited to consider and emphasize the empowerment of the LINKS target groups the Consortium intends to achieve through the Community.
- An assessment of our progress towards the objectives for the LINKS community at M25 has been performed.
- Some redefined criteria for objectives moving forward are presented. In particular, we are from now on concentrating on who is contributing to the project results, and specifically to the LINKS Framework.

### 3. COMPOSITION OF THE LINKS COMMUNITY

The figure below presents the visual identity of the LINKS Community.

**Figure 1: Visual identity of the LINKS Community**



As illustrated, the LINKS Community is designed around three primary means of knowledge-sharing and interaction during the lifetime of the project:

- LINKS cases (earthquake in Italy, industrial disasters in the Netherlands, drought in Germany, flooding in Denmark and terrorism in Germany) cut across diverse hazard scenarios, geolocations, socio-cultural and demographic contexts, and are used to leverage the contextualized knowledge of local stakeholders and to apply it in the LINKS research.
- LINKS Community Workshops (LCWs) are linked to the case and are used for capacity-building at the local level with relevant stakeholders. They are organized locally by the LINKS project partners to focus on specific topics relevant to the research and results in LINKS.
- LINKS Advisory Committee (LAC) includes selected relevant professionals and experts to advise, inform and validate developments and results in the project.

The contextualized knowledge and inputs collected from the LINKS Community through the cases, the LCWs and the LAC, are used to inform the projects research and results. At the broadest level, the inputs are crucial for the development and evaluation of the LINKS Community Center (LCC) and LINKS Framework, and for their development and use once the project has concluded. Indeed, the LCC and the LINKS Framework are conceptualized to outlive the project's lifecycle and to become an established resource for different types of stakeholders dealing with, or affected by, social media and crowdsourcing (SMCS) in disasters.

The LINKS Cases are ongoing and are covered in detail in deliverables D6.1: First work plan for the five cases, and D6.2: Second work plan for the five cases. In the following sections we focus primarily on the LCWs and LAC. The LCC is also briefly discussed as it plays a key role in the context of the LINKS Community. Finally, a risk-management plan in LINKS activities is presented as well.

### 3.1 LINKS Community Workshops

The LCWs are workshops for capacity-building at the local level and allow for the project to directly engage with different stakeholders and exchange knowledge, good practices, and feedback regarding the use of SMCS in disaster situations. This feedback and knowledge are then applied to the LINKS project to improve the research, which is an essential part of the project. Operating on a local level (organised by the local partners), the workshops allow for the gathering and communicating of information regarding the project's objectives and results. The LCWs are held in the countries identified for the LINKS research as cases (the Netherlands, Germany, Italy, Denmark) and focus on the case scenarios related to each location (industrial disasters; drought and terrorism; earthquakes; and flooding, respectively). Additionally, the LCWs are open to external stakeholders, supporting the key role of knowledge and experience sharing among key stakeholders by not excluding regional, national, or international experts if they are relevant to the project and its outputs.

General objectives have been identified for the LCWs, which are:

- to improve information and knowledge exchanges among the stakeholders in local cases, together with relevant stakeholders and experts in the broader LINKS Community;
- to collect data and inform the assessments of the LINKS knowledge bases and the development of the LINKS Framework;
- and to disseminate project developments and results.

These general objectives will guide the LCWs to produce the best outcomes to reinforce the LINKS research and results. Additionally, in the next phase of the project, case assessment teams will further orient their LCWs objectives towards testing and validation of the products developed by the knowledge bases as part of the Framework. While this was not possible in the first phase of the project – since the project's partners were in the process of developing the results – it will be

implemented into upcoming LCWs. This is expected to contribute to the uptake of project's results by allowing stakeholders early access in the development and ownership of the results. As previously mentioned, the expected overall outcome from the LCWs is that the discussions and conclusions reached will contribute to enhancing local resilience. Generally, organisers will gain insights to better orient their research and understand local stakeholders' needs, while participants will gain new knowledge and insights which will allow them to improve their or their entire organisations' work. While the overall objectives for the LCWs have been identified, it is worth noting that each LCW also has its own specific objective. Similarly, the benefits stemming from each LCW (both from the LINKS project perspective and from the external stakeholders' point of view) will vary according to the workshop discussions, topics and participants.<sup>7</sup>

To conclude, the LCW is a concrete way to allow the LINKS Community to engage through the sharing and gathering of experience and knowledge. This in turn ensures the project research and results are continuously improving based on the discussions, while offering benefits for different target groups as well as the project itself. This beneficial exchange has been demonstrated, for instance, with the first two LCWs - held, respectively, in Italy in November 2021, and in Germany in February 2022.

The overall objective of the Italian LCW was to introduce the LINKS project and disseminate its developments among the participants. In particular, this first workshop allowed for useful discussions relating to the use of SMCS in management of earthquakes using SMCS, and it was used to introduce the LINKS project to the most relevant stakeholders involved in civil protection and to local policymakers in Umbria region, as well as to create a network of local stakeholders to be involved in the project and to orient its results.

The second LCW aimed at gaining a deeper insight into the use of SMCS within the German police, as well as into the participants' expectations from the guidelines designed by the project and that will be eventually encompassed in the LINKS Framework. In this regard, the workshop allowed to better understand the differences in the use of social-media between the polices in Germany (e.g. some use only Twitter, while other use different social-media), and to get relevant feedback from the practitioners on the guidelines developed in LINKS (e.g. should be short and explicit, and should also include information on regulatory aspects for the use of SMCS).

### 3.1.1 Suggested format of LINKS Community Workshops

The table below presents an updated suggested format for the LCWs. The principles listed here, introduced in the LINKS Community Strategy (D8.1), and readapted based on the experience of the workshops organised in LINKS so far, are advisory, not prescriptive, and will therefore be adjusted

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<sup>7</sup> Nevertheless, in section 2 of D8.4 we identified some expected benefits the different target groups included in the LINKS Community may derive from the LCWs.

on a case-by-case basis taking into account the specific scope of each workshop and the needs of the local partners in charge of hosting and conducting it.

**Table 3: Suggested format of LINKS Community Workshops**

Organising structure	Workshop
<b>Participants</b>	The workshop should have a limited number of participants compared to the number of presenters (e.g. no more than 10 participants per presenter). This is for several reasons, such as the difficulty of focusing on specific topics before a large audience, of managing a large number of participants with only one moderator, and for COVID-19 related restrictions. Alternatively, with more presenters, more participants can be invited. Overall, keeping participants numbers low should allow specialisation.
<b>Presentation Style/Interactivity</b>	The use of an active presentation style is suggested to encourage audience participation through specifically designed sections or opportunities for contribution and engagement. The workshop should be as interactive as possible, with multiple audience questions and feedback opportunities.
<b>Length</b>	Between 2-4 hours but subject to availability, type of workshop and chosen topics. Workshops are expected to take place over one or two days depending on the degree of specialization needed. Based on the experience of the last workshops organised in LINKS, it is suggested that the organisers take into account the time needed to collect relevant feedback from the participants. It is better to overestimate that time (and potentially conclude the workshop in advance), rather than underestimate it and not being able to collect all the feedback.
<b>Number of Topics</b>	Preferably one, with some digressions with case studies, examples and field activities. Particular attention could be paid to a specific case from the area that hosts the workshop.
<b>Information Flow</b>	The workshop should present a multi-directional information flow, meaning that the presenter shares information with participants who, in turn, share information among themselves and with the presenter.
<b>Outcome</b>	Feedback received by presenter and incorporated into LINKS research. This can be done through requesting written feedback or through recording verbal feedback from participants. Ideally, the organiser should aim not only at collecting participants' opinions on the topics discussed

	during the workshop, but at understanding whether the discussions held may have an impact on the work of the participants or that of their organization.
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Besides the principles presented above, it should be taken into account that due to the COVID-19 pandemic, in-person workshops may continue to be restricted for an unpredictable time. Therefore, a set of principles aimed at facilitating the organisation of virtual workshops and at mitigating the difficulties associated with virtual meetings is presented below (and was made available in the D8.4):

1. Organise online meetings via a tool that allows for breakout sessions

Most teleconferencing tools offer the opportunity to divide participants into smaller groups ('breakouts') for discussions and evaluation purposes. Organisers should therefore familiarise themselves with the mechanisms of those tools (e.g. Microsoft Teams, Zoom, GoToMeeting) so that they are comfortable managing this during the meeting.

2. Have extra organisers to help facilitate breakout sessions

Having an organiser participating in each breakout room can help ensuring that discussions proceed well and that groups are kept on track. This will also have the added benefit of allowing the organisers to be exposed to the discussions that take place and inform the eventual conclusions.

3. Understand the limitations of the format and plan accordingly

Virtual meetings are clearly very different from physical ones, and the limitations can be quite severe in comparison. Demonstrations, discussions and interaction, as well as the gathering of helpful feedback, may not be as easy to facilitate in virtual meetings. Anticipating this and preparing accordingly will help ensure that the LCW's remain a valuable tool for the project partners and for the workshop's participants.

4. Prepare participants for meetings by sharing materials (and potential explanations on their use) in advance

Organisers are encouraged to share materials with participants in advance, along with an explanation for their use. This will allow participants to familiarise themselves with the workshop's topics and material beforehand, enabling discussions to proceed to more advanced levels more quickly.

5. Accept that discussions and feedback may not be as comprehensive or incisive and adapt accordingly

The virtual context clearly makes discussions less natural and organic. This may entail that the organisers will need to adapt their expectations for the workshops (e.g. rather than being able to fully discuss a research topic and gather input on its entirety, it might be the case that they will need

to compartmentalise the workshops). The advantage of virtual meetings is that it is easier to plan and hold them compared to in-person meetings, and they can reach a higher number of participants with different expertise.

### 3.1.2 Suggested methodology for organizing and planning LINKS Community Workshops

As we introduced in the D8.1, the LCWs are organised collaboratively between the European Organisation for Security (EOS), leader of the work on the LINKS Community, and the local partners (case coordinators) who are in charge of hosting and conducting the workshop. The table below presents the main actions to be carried out for organising an LCW and defines, for each of them, the roles of the project's partners involved in the organisation of the LCWs.

**Table 4: LCWs roles**

Task/Activity	Leader partner	Co-leader partner
Definition of the LCWs objective(s) and expected outcome(s).	Case coordinators	EOS
Ensure that the LINKS research can be demonstrated, and clear explanations of the concepts, theories and practical application of the discussion topics can be provided.	Case coordinators	EOS
Overview on LCWs' budget.	EOS needs to have an overview of what each partner has for spending on the LCWs. This will help partners keep track of what they can spend on future workshops (e.g. for the venue, consumables per number of participants, bringing in external participants, travel etc.).	

<p>Definition of the LCW title, content, stakeholders, and location.</p>	<p>Case coordinators.</p>	<p>Where needed, EOS and FEU will support the case coordinators identifying relevant stakeholders to attend the event. The degree of involvement of EOS and FEU in this task depends on several factors, such as the scope and the nature of the workshop. If the workshop has an exclusively local focus, the case coordinators may have already-established relationships with local stakeholders. In this case, EOS and FEU's role in the identification of relevant stakeholders would be limited. If, on the contrary, the scope of the workshop is broadly defined, and the participation of external stakeholders from different countries and contexts is required, EOS and FEU's role is relevant.</p>
<p>Definition of the workshop's format (maximum number participants, presentation style, length, number of topics, information flow, how to collect feedback and measure the impact).</p>	<p>Case coordinators.</p>	<p>EOS, through dedicated meetings and through the guidelines provided in D8.1 and D8.4. EOS will also provide a common tool (the LCW Feedback Form) to collect relevant feedback from the participants. The document can be readapted by the case coordinators to suit the specific context and objective of the LCW, and needs to be translated from English into the language used in the country hosting the workshop.</p>



<p>Invitation of participants.</p>	<p>This will depend on several factors (e.g. language, whether case coordinators are involved in local networks, whether they personally know some of the participants they want to invite etc.). Therefore, this task is a priori up to the case coordinators, but EOS will be also involved in this process where needed.</p>	<p>EOS can be involved in the process, supporting the case coordinators by providing a standard text that will then be adjusted to suit the specific context and objective of each workshop.</p>
<p>LINKS visual identities to produce D&amp;C material (e.g. flyers, brochures), if needed.</p>	<p>LCU provided the LINKS visual identities, but it is not responsible for printing D&amp;C material. This should be up to the case coordinators.</p>	<p>EOS will help with the coordination of the activities between case coordinators and LCU.</p>
<p>D&amp;C activities to sponsor and communicate the LCW.</p>	<p>EOS, as leader of the LINKS Community, is responsible for live tweeting and advertising the event through its social media.</p>	<p>LCU should be responsible for advertising the event through the project's social media and website.</p>
<p>Short report on the LCW.</p>	<p>Case coordinators, through the dedicated LCW Report Template provided by EOS.</p>	
<p>Integration of the short report on the LCW into D8.4, D8.5, D8.6.</p>	<p>EOS (D8.4 and D8.5), FEU (D8.6).</p>	<p>Proof-reading by case coordinators.</p>
<p>Follow up with participants to assess LCW's impacts on their work (or that of their organization).</p>	<p>This task should be carried out collaboratively between EOS and the case coordinator who hosted and conducted the workshop. This can be done through future surveys addressed to the workshop's participants, whose contacts</p>	

are collected by the case coordinators.

While a detailed methodology for organising and planning the LCWs was made available in the D8.4, EOS, to give an indication of how the LCWs planification should be approached, encourages the organisers to follow the four steps presented in the table below.

**Table 5: Main steps for planning LINKS Community Workshops**

Step	Action	Relevance of the Action
<b>Step 1</b>	The organisers define the objective of the workshop.	Once the objective of the workshop is defined, it will be easier to design specific contents that will allow participants to work towards this objective and provide the input required.
<b>Step 2</b>	The organisers ensure that their research can be demonstrated, and clear and straightforward explanations of the concepts, theories and practical applications of the discussion topics can be provided.	This facilitates active participation from the participants.
<b>Step 3</b>	To design opportunities for discussions.	This enables dynamic engagements among participants and helps them evaluating the topics at hand and reach conclusions that can be incorporated into LINKS research.
<b>Step 4</b>	To design an effective feedback mechanism.	This allows for evaluation and discussion results to be clearly identified and incorporated into LINKS research.

### 3.2 LINKS Advisory Committee

The LINKS Advisory Committee (LAC) is a key component of the LINKS Community. Specifically, the LAC consists of invited professionals and experts from different stakeholder organizations (representing the LINKS project target groups) that advise, inform and validate developments and results in the project.

The objective is to bring together and involve multidisciplinary stakeholders, including representatives from the associations in the project consortium, to achieve validated and useful results. For this, the LAC discusses the project outcomes and especially focuses on the in-depth integration into the domain of public safety and security. Importantly, LAC meetings are held at key points in the project to achieve strategic and useful outputs. Moreover, the structure and members of the LAC may vary during the project, in relation to the project progress, needs and changing challenges.

The committee consists of invited advisors from different relevant organizations representing the target groups of LINKS, as illustrated in the image below.

**Figure 2: LAC composition**



At M25, two LAC meetings have taken place in LINKS. The current LAC composition, as well as the main results of the first LAC meeting (held virtually in January 2021), were presented in section 6 of the D8.4.

The second LAC<sup>8</sup> meeting was organised on 17 February, 2022 as a virtual meeting on TEAMS, and it was conducted by the project partner Safety Innovation Center (leader of WP4). The meeting was attended by 10 external advisers and 10 project's partners, and it was aiming at getting feedback about the concept and content of the LCC, specifically in relation to Disaster Community Technologies (DCTs), SMCS Guidance documents, and Stakeholder Networks. The concept and

<sup>8</sup> The objective and main results of the second LAC meeting were also presented at the Interim Review Meeting with REA on 23 February, 2022.

current content of the LCC was considered promising as a platform for networking. A challenge will be in the future, with respect to the sustainability. Furthermore, the opportunities to select appropriate DCTs were seen as very helpful, and some new advice were given to refine the current status (aspects of trust assessment and connections to good practices were particularly emphasized). Guidance documents on SMCS were also considered useful, especially for practitioners, as long as they are presented in a user-friendly way (concise and straightforward versions should be given priority).

### 3.3 LINKS Community Center

In the context of the LINKS Community, the LINKS Community Center (LCC) plays a key role for facilitating the online sharing of knowledge and experiences around the use of SMCS in disasters. As introduced in D7.1 (Kiehl, Lüke, Tappe, Gehlhar, Habig, & Marterer, 2021), the LCC represents the technical foundation and the gathering place for the online community. In fact, the LCC brings together different stakeholders (LINKS Community) in one user-friendly and flexible web-based platform and enables them to exchange information and experiences on the use of SMCS in disasters. Additionally, through the LCC, LINKS Community members can engage with LINKS results, including the LINKS Framework and the LINKS case-based assessments.

The LCC therefore plays a vital role in creating and fostering a lively community around the LINKS project and its results. Moreover, the LCC can be a valuable tool for establishing and sustaining the LINKS Community beyond the duration of the LINKS project, becoming an established resource that the disaster management community can call upon.

The first demonstrator of the LCC was made available in D7.3 (Kiehl, Habig & Marterer, 2021), and can be accessed online at: <https://links.communitycenter.eu>. For more information on the concept of the LCC and how it enables Community engagement, please refer to D7.2 (Kiehl, Tappe, Werner, Habig & Marterer, 2021).

### 3.4 Risk-management in LINKS activities

It is important to acknowledge potential risks that may occur in relation to the activities of the LINKS Community. In addition to set of principles aimed at mitigating the difficulties associated with virtual meetings, presented in section 3.1.1, the table below, updated since D8.1 based on the experiences of the workshops organized in LINKS so far, identifies several potential risks that could adversely impact the process of building the Community and holding workshops, and sets out mitigation measures that can lessen their impact. The main updates since D8.1 relate to the difficulties, and the associated mitigation measures, in gathering relevant feedback and in defining the project's partners roles in the organisation of the LCWs.

**Table 6: Risks in LINKS Community activities and mitigation measures**

Potential risks in Community activities	Mitigation measures
Insufficient number of contacts in database to identify relevant attendees for activities in LINKS Community.	Leverage partners for more contacts and expand outreach and research of relevant contacts to subnational level.
Community is not of sufficient size.	Increase promotion and dissemination activities, refine key messages to ensure the opportunities for the Community's members are well-understood.
Difficulties in gathering relevant feedback from LCWs or LAC meetings.	Revisit format of the workshop and feedback questionnaire to suit the specific objective of each event. Hold discussions with project's partners to better understand their needs and expectations, and refine approach to feedback accordingly.
Communication difficulties with local stakeholders due to language barriers.	Liaise with local project's partners to translate relevant material in necessary language and work with them to ensure that language issues are resolved.
Difficulties in defining the project's partners roles in the organisation of LCWs.	Refer to the LCWs roles document provided in section 3.2.2 of the present deliverable. Discussions between case organisers and EOS, leader of the work on the LINKS Community, should start well in advance (e.g. 2 months prior to the event).
Impossibility of organising in-person workshops due to the COVID-19 pandemic.	Organise on-line meetings and structure them in a way to ensure a relevant degree of interaction between organisers and participants. Creating breakout sessions to keep participants number low and sharing material (e.g. concepts explanations) with participants in advance will likely mitigating the difficulties associated to the virtual environment.

## Key Takeaways from this Section

- There are three primary means of knowledge-sharing and interaction during the lifetime of the project: the LINKS cases, the LINKS Community Workshops (LCWs), and the LINKS Advisory Committee (LAC).
- The contextualized knowledge and inputs collected via the LINKS cases, the LCWs, and the LAC are crucial for the development and evaluation of the LINKS Community Center and LINKS Framework, and for their continued development and use once the project has concluded.
- The suggested format for the LCWs has been slightly updated since D8.1, implementing lessons learned from the LCWs conducted so far.
- The identification of project partners' roles in the organisation of an LCW is presented.
- A risk-management plan for LINKS Community activities is presented. This identifies potential risks for the activities in LINKS and presents the respective mitigation measures.

## 4. IDENTIFICATION OF LINKS COMMUNITY STAKEHOLDERS

In the D8.1 we presented the five target groups for the LINKS project that had been identified in the LINKS Grant Agreement (GA), and that were intended to form the core of the LINKS Community. The original categorization of these target groups is illustrated below.

**Figure 3: Original categorization of LINKS Target Groups**

- **TG1 - PRACTITIONERS**
- **TG2 - POLICY AND DECISION MAKERS**
- **TG3 - LOCAL COMMUNITIES**
- **TG4 - RESEARCH NETWORKS**
- **TG5 - CITIZENS AND MEDIA**

Based on the recommendations included in the 'Project Review Report', this section provides an updated version of the LINKS target groups, as presented in the image below. The main rationale behind the revisited categorization of the project's target groups is the need to better consider their needs and expectations. A clear description of the contribution the different target groups can give to LINKS, as well as the benefits they can derive from the LINKS activities, is provided in D9.2: Updated LINKS Dissemination, Exploitation and Communication Strategy (Opromolla, A. 2022).

**Figure 4: Updated categorization of LINKS Target Groups**

	<b>PRACTITIONERS</b>
	<b>POLICY/DECISION MAKERS</b>
	<b>CIVIL SOCIETY</b>
	<b>BUSINESSES</b>
	<b>DEVELOPERS</b>
	<b>DISSEMINATORS</b>

## 4.1 Practitioners

The LINKS project refers to practitioners as “someone who is qualified or registered to practice a particular occupation [or] profession” (European Commission, 2017) in a field relevant to LINKS research areas. This category encompasses, among others, organisations specialised in giving assistance in emergency situations, such as fire and rescue services, medical emergency services, police, and civil protection forces. Practitioners are key members of the LINKS Community as they will be the main end-users of project results. As such, their early involvement in the research process emphasises the bottom-up approach that the project is adopting, while also improving the eventual uptake of project results. Furthermore, practitioners will play a crucial role in the validation and testing of project results via their participation in the case studies and development of the LINKS Community Center (LCC) and LINKS Framework.

## 4.2 Policy and decision-makers

Policy and decision-makers are legislative and executive bodies that operate at different territorial levels (local, regional, national and European) and have a large cross-sectoral impact. They are strongly connected to the LINKS Community because of the responsibility they share, such as risk communication policies or decisions regarding the implementation of e-Government services that can facilitate disaster risk management. Their inclusion in the Community is beneficial as it helps ensure that the project's scientific evidence and results contribute to enhance the resilience of EU communities.

## 4.3 Civil Society

This category includes citizens who at times of crises can provide important data and information, and local communities, defined as groups linked by social and organisational relationships at the local level deriving from common interests, values and needs. Said category includes, but is not limited to, local associations actively engaged in supporting vulnerable groups (e.g. hearing and visual impairments, elderly people etc.).

## 4.4 Businesses

The LINKS Community aims to include industrial bodies and private sector manufacturers that are relevant to the research and activities in the project (e.g. to understand practices in the deployment of relevant goods and services). For this, sectoral, hazard-specific businesses networks are being identifying through the LINKS Networks Database (see section 6.2). This includes, but is not limited to, small, medium and big enterprises that are actively engaged in the areas relevant to the LINKS research, such as disaster resilience, critical infrastructure protection and technologies, public transport, energy, and water management. The Consortium considers that the involvement of these



stakeholders may be beneficial for the LINKS Community, especially in relation to the adoption and uptake of project's results.

## 4.5 Developers

This category is composed of individual researchers, universities and academic groups working on different aspects in the field of disaster resilience or other areas relevant to LINKS (e.g. crisis management, social sciences, technology etc.). It is crucial for providing feedback on the validity of LINKS concepts, research processes and results, such as the LCC and the LINKS Framework.

## 4.6 Disseminators

Disseminators refer to media providing information about disaster management and/or civil protection. As such, disseminators represent a relevant target group for the project since they may contribute to the spread of the scientific evidence developed in LINKS and of the project results. Furthermore, they may have a crucial role in providing feedback on the use of SMCS for communication purposes during a disaster.

### Key Takeaways from this Section

- The LINKS Community's target groups that were identified in D8.1 have been revisited and updated.
- The rationale behind the revisited categorization is the need to better consider the needs and expectations of the different LINKS target groups.

## 5. LINKS COMMUNITY ENGAGEMENT

This section presents the purpose of engagement with the LINKS Community and the modalities through which the LINKS partners engage with the members of the LINKS Community. Additionally, it provides an overview on the LINKS Community engagement roadmap and presents the main activities carried out until M25.

### 5.1 Purpose of engagement with the Community

The matrix below is used by the product owners to define the relevance<sup>9</sup> of the LINKS Community stakeholders in relation to the project expected results, within the context of their participation in the LINKS Community Workshops (LCWs). At the same time, this matrix will also help the case coordinators who are organizing an LCW, and planning to introduce some of the preliminary LINKS results<sup>10</sup>, to identify the stakeholders considered most relevant from the product owner responsible for said results. This will also allow for clearer and more purposeful messages<sup>11</sup> to be used to encourage the relevant stakeholders to participate in the Community, as their relevance to each expected result will be a reflection of their skills, expertise and interests. In addition, this matrix helps the workshop organisers define the content to be discussed in their workshop, based upon the Community availability and relevance to each research area.

**Table 7: Stakeholders relevance matrix**

Product <sup>12</sup>	Practitioners	Policy and Decision-makers	Civil Society	Businesses	Developers	Disseminators
Including citizens Handbook	5	5	5	3	4	2
Educational Toolkit	5	4	5	1	4	2
Pocket Ethics Guidelines	5	2	2	1	5	1

<sup>9</sup> Scale of relevance: 1 - should not participate; 2- irrelevant to results; 3- can provide context, but no direct impact; 4 – of secondary importance; 5 - fundamental to the expected outputs.

<sup>10</sup> At the moment of writing the present deliverable – June 2022 - the LINKS products are at different stages of development.

<sup>11</sup> Key messages for the different target groups included in the LINKS Community are presented in D9.2.

<sup>12</sup> A detailed presentation of all the products included in this matrix, and of their connections to the Framework, can be found in D5.3: First Version of the LINKS Framework.

Resilience Wheel	5	3	1	3	5	2
SMCS Technologies Library	5	4	1	5	5	2
SMCS Guidelines Library	5	5	1	3	4	4
SMCS Examples Library	5	4	2	3	4	2
LINKS Framework	5	4	3	3	4	2
LINKS Community Center	5	4	3	4	4	3

The above matrix, while allowing for specific analysis of relevant stakeholders for different results expected from the project, also underlines a general trend for relevant stakeholders to the LINKS Community as a whole. For example, practitioners received the most 5's overall - defined as *fundamental to the expected outcomes* - allowing not only case coordinators organising an LCW, but also the LINKS Consortium, to understand which group may be the most relevant stakeholder, and how to tailor their outputs. Conversely, civil society received the most 1's overall, indicating that perhaps they should be least prioritised when it comes to organising the LCWs. It is important to note, however, that there is a variation between products and relevant stakeholders beyond simply the most relevant and the least relevant. Business, while not overall relevant, was deemed fundamental to the development of the SMCS Technologies Library. Thus, the matrix acts as a useful tool that allows a wide range of project partners (case coordinators, product owners, etc.) draw specific and general conclusions about who their relevant stakeholders are, allowing for more targeted and fruitful discussions in the LCWs and over the project as a whole.

## 5.2 How do LINKS partners engage with the Community?

As introduced in the D8.1, to engage with external stakeholders the LINKS project follows the Spectrum of Public Participation, which has been developed by the International Association for Public Participation (IAP2): informing, consulting, involving, collaborating and empowering. However, EOS, as leader of the Community, adapted the spectrum to suit the anticipated roles of the Community: Informing, Consulting/Involving, and Empowering.

These phases for ensuring stakeholders participation in the context of the LINKS Community are defined below:

**Informing:** Per the IAP2, informing is defined as the provision of “balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions”.<sup>13</sup> In the context of the LINKS project the informing phase began at M5 (October 2020) and ran for 7 months, until M12 (May 2021).

**Consulting/Involving:** from the same source, Consulting is considered to be “obtaining public feedback on analyses, alternatives and/or decisions”<sup>14</sup>, while Involving is “to work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered”<sup>15</sup>. LINKS partners have the opportunity to both consult and involve the Community throughout the duration of the project and different tools are available to allow them to achieve both. In the context of the LINKS project the consulting/involving phase started at M12 (May 2021) and will run until M37 (June 2023).

**Empowering:** “To place final decision making in the hands of the public”.<sup>16</sup> Although LINKS partners will retain decision making power, the inclusion of external participants, including citizen stakeholders, will give a degree of empowerment to the stakeholders. This is important not only to ensure that the diversity-by-design approach of the project is respected, but also to maximize the impact of LINKS and research results. In the context of the LINKS project the empowering phase will start at M38 (July 2023) and run until M42 (November 2023).

The next section details, for solutions each of the three above-mentioned phases, the main activities carried out and the foreseen ones.

## 5.3 LINKS Community Engagement Roadmap

This section presents the activities carried out (and the upcoming ones) in each phase of the LINKS Community engagement roadmap (Informing, Consulting/Involving, and Empowering).

### 5.3.1 Phase 1 Informing: Promoting the LINKS Community

Phase 1 consists of creating an awareness about the LINKS project and the LINKS Community among the targeted stakeholders.

When: the informing phase began at M5 (October 2020) and ran for 7 months, until M12 (May 2021).

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<sup>13</sup> International Association of Public Participation (IAP2), public participation spectrum (2018): [https://iap2.org.au/wp-content/uploads/2020/01/2018\\_IAP2\\_Spectrum.pdf](https://iap2.org.au/wp-content/uploads/2020/01/2018_IAP2_Spectrum.pdf)

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

**Who:** during this phase targeted stakeholders were reached to inform them about the LINKS project ambition and developments.

**What:** to launch this phase the following activities were carried out:

- LINKS Twitter, Facebook and LinkedIn Account were set up;
- Promotional materials (e.g. flyers, brochures) were created;
- LINKS Website is operational;
- A flexible Workshop Plan for the next six months was established and made available in D8.4;
- Two LINKS Newsletters (at M8 and at M12) were produced and shared via the project website. The LINKS Newsletter will continue to be realised in the upcoming months to make the main project achievements and progresses accessible to the general public.

### 5.3.2 Phase 2 Consulting/Involving: Engagement in LINKS and validating LINKS research

Phase 2 is the core phase of the project, since it is the time to receive feedback from external stakeholders regarding the development and testing of project results.

**When:** phase 2 started at M12 (May 2021) and will run until M37 (June 2023)

**Who:** all the targeted stakeholders, taking into account their specific background and domain of expertise.

**What:** the following activities were carried out and will continue throughout the whole duration of the phase:

- Organization of LINKS Community Workshops: at month 25, 9 LCWs have taken place, and two additional workshops are foreseen by M28 (September 2022).<sup>17</sup>
- Organization of LINKS Advisory Committee meetings: two LAC virtual meetings took place so far. The first LAC meeting was held on 19 January, 2021, while the second on 17 February, 2022. One additional LAC meeting, focusing on the external assessment of the LINKS Framework, is expected to take place by the end of 2022. Its main objective will be to ensure the quality and the relevance of the topics around which the Framework is currently being developed.
- Creation of the LINKS Community Center: the first demonstrator of the LCC was made available in D7.3 (Kiehl, Habig & Marterer, 2021) and it can be accessed online at: <https://links.communitycenter.eu>. The final demonstrator of the LCC (D7.4) is foreseen for M25 (June 2022). Besides, several user testing workshops aimed at ensuring - among other - the quality and usefulness of the LCC are planned for the upcoming months.
- Creation of the LINKS Framework: the first version of the LINKS Framework (D5.3) is currently under development and will be available at M25 (June & 2022). The second version of the Framework (D5.4) is foreseen for M30 (November 2022), and the final version (D5.5) for M38

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<sup>17</sup> A tentative LCWs roadmap for the next six months was made available in section 3 of D8.4.

(July 2023). The design of some Framework's components (e.g. the Educational Toolkit) has already been evaluated in the context of the LCWs;

- Case activities: case activities such as interviews and surveys are ongoing, and constitute an important tool for engaging with external stakeholders and for improving the project research and results;
- Day to day communication activities regarding the outputs of the project (e.g. moderation of the social media channels, feeding of the website, creation of publication): the project website is continuously updated, including the publication of public deliverables. Project partners publications relevant to LINKS are also made available via the website.

### 5.3.3 Phase 3 Empowering: Evaluating, Sustaining and Deploying the LINKS results

This is the final phase of the project, and it deals with the validation of the project results from the targeted stakeholders.

When: the final phase will start at M38 (July 2023) and run until M42 (November 2023).

Who: All the targeted stakeholders.

What: the main activity will be the organisation of the last set of workshops, which will specifically aim at receiving external validation of the project results and ensuring sustainability.

#### Key Takeaways from this Section

- A matrix was developed in order to guide the engagement with the LINKS Community in the context of the LCWs, and will allow partners to identify which stakeholders are most relevant in different aspects.
- Three phases of engagement were identified, modelled after the Spectrum of Public Participation by the International Association for Public Participation. For each of them, the engagement activities carried out by the Consortium, as well as the upcoming ones, are presented.

## 6. HOW TO BUILD THE COMMUNITY

This section presents the procedures and tools that the Consortium designed in order to build the LINKS Community. Those procedures and tools were established to ensure the participation of multidisciplinary stakeholders to the developments, testing and evaluation of the LINKS results.

### 6.1 LINKS Community Database

At M4 (September 2020), the Consortium started establishing a database – the LINKS Community Database - to gather the contacts of relevant individual stakeholders who, based on personal background and field of expertise, may have an interest in becoming members of the LINKS Community and in actively contributing to the project's developments and main results. Each project's partner conducted surveys and investigations in its respective networks, and selected the contacts deemed most relevant taking into consideration the project's objectives and research areas.

The LINKS Community Database represents one of the primary sources for the identification of external stakeholders relevant to LINKS, and it will be continuously updated throughout the project's lifetime to suit the needs of the project's partners at different moments in the project. At month 25, the database counts 78 individual stakeholders who may be contacted and included in the LINKS Community activities if deemed relevant from the project's partners.

The structure of the LINKS Community Database is illustrated in Annex I.

### 6.2 LINKS Networks Database

The LINKS Networks Database was established to specifically address one of the recommendations included in the 'Project Review Report', namely to include sectoral, hazard-specific stakeholders and SMCS producers in the LINKS Community. Through this tool the Consortium identifies national and European sectoral networks relevant to the LINKS research areas, and representing the project's main target groups. As such, it includes, among others, small, medium and large companies operating in the field of critical infrastructure protection, social media and technologies, energy, public transport, and water-management. Those stakeholders are identified and will be contacted with the aim of involving them in the testing and evaluation of the project's results, and of promoting the research outputs of LINKS to a wider audience.

The LINKS Networks Database currently counts around 120 entities. The systematic contacting of said entities is an ongoing activity and will be reported in deliverable D7.7: First Report about the relation to other networks, due at M30.

## 6.3 External requests

Besides the tools presented above, an on-line survey was created to allow external stakeholders to autonomously express their interest in joining the LINKS Community. The on-line survey was created at M10 and can be accessed at the following link: <https://ec.europa.eu/eusurvey/runner/LINKSLCCSurvey2021>.

Through this survey the Consortium aims to define the sector and level of activity of external stakeholders interested in becoming members of the LINKS Community, as well as their expected contribution to (and expectations from) the project, as illustrated in the images below.

**Figure 5: LINKS Community: Expression of Interest – Page 1**

- \* Type of organisation
  - Citizens (Individuals or Groups)
  - Industry
  - Policy and decision-makers
  - Practitioners
  - Scientific and Research Community
  - Other
  
- \* Sector of activity
  - Crisis and Disaster Management
  - Law Enforcement
  - Public Safety and Civil Protection
  - Urban planning
  - Security
  - Cybersecurity
  - Social Media and Crowdsourcing Technologies
  - Other
  
- \* Level of activity
  - Local
  - Regional
  - National
  - European
  - International
  
- \* How would you like to contribute to LINKS?
  - LINKS Community Center
  - LINKS Community Workshops
  - Research Participant or Observer
  - Other



**Figure 6: LINKS Community: Expression of Interest – Page 2**

\* What expertise can you bring to LINKS?

\* What are your expectations from the LINKS Community?

Any other comments?

A second on-line survey, distributed at M20 (January 2022) and active until M22 (March 2022), was created under WP4 as a research instrument to gain more attention among people who are working with social media and crowdsourcing (SMCS) in disaster management and are familiar with it on an operational level (e.g. social media manager). Although it cannot be considered as a tool to build the LINKS Community, the survey is likely supporting the inclusion of additional external stakeholders in LINKS activities.

## 6.4 Key Stakeholder Analysis

Once relevant stakeholders are identified, it is crucial to analyse their interests and motivations in participating in LINKS Community activities, as well as the exploitable knowledge and expertise they can offer to improve the LINKS research.

The key stakeholder analysis is ongoing and embedded in the ongoing LINKS activities (e.g. LCWs). The results of the analysis, as well as key messages that have been used to communicate with members of the Community, will be provided in the third iteration of this Strategy (to be delivered in M39), after partners have been able to interact with stakeholders to complete the analyses.

### Key Takeaways from this Section

- One of the main tools to build the LINKS Community is the LINKS Community Database, a living document where to include all the relevant contacts of individual stakeholders who may have an interest in the LINKS project.
- The LINKS Networks Database was established to include sectoral, hazard-specific stakeholders in the LINKS Community.
- A survey was created to allow external stakeholders to join the Community.

## 7. SUSTAINABILITY OF THE LINKS COMMUNITY

This section identifies the ways to ensure the sustainability of the LINKS Community. As mentioned previously, the ambition of the Community is to become a resource for its members, and not simply for LINKS project partners. Moreover, as introduced in section 2.1.1, one of the main objectives of the Community is to outlive the research project, meaning that it will remain a valuable tool for sharing knowledge, good practices and experiences about the use of social media and crowdsourcing (SMCS) in disasters even beyond the project's lifecycle.

### 7.1 Tools for developing the Community Sustainability

The LINKS Community Center (LCC) is the primary tool for developing the Community sustainability. As introduced in section 3.3, the LCC represents the technical foundation and the gathering place for the online community, enabling different types of stakeholders (LINKS Community) to exchange information and experiences and to access, discuss and assess the result and resources (e.g. The LINKS Framework) of the LINKS project. The rationale behind the development of the LCC is to establish a continuous dialogue and obtain feedback from a broader stakeholder community without on-site presence at the case sites. The development of the LCC is based on the needs of stakeholders, as well as on experiences with former community center developments in other projects (e.g., H2020 - eNotice).

Importantly, it is planned for the LCC to remain active even beyond the project's lifetime. As such, it represents the main tool for sustaining the LINKS Community beyond the duration of the project, becoming an established resource that the disaster management community can call upon. The sustainability of the LCC, and in turn that of the LINKS Community, will be ensured through the following actions:

- Focus on power users who will be most active for the initial establishment of the LINKS Community.
- Consider the technical or conceptual integration of the LCC within a wider network such as the EU Knowledge Network or CMINE.
- Use open interfaces and data formats to ensure that the content of the LCC is portable and not locked-in.
- Implement steps to minimize operational and administrative overhead of the LCC.

Besides the LCC, the LINKS Community Workshops (LCWs) and the LINKS Advisory Committee (LAC) can also be considered as important tools for ensuring the Community sustainability, though their existence is limited to the project's duration. In fact, the relationships that will be built via the LCWs and the LAC, as well as the knowledge that is developed, will contribute to ensuring that the LINKS Community remains a resource for all stakeholders dealing with, or affected by, SMCS in disasters even beyond the project lifecycle.

## Key Takeaways from this Section

- One objective for the LINKS Community is the sustainability as a resource sharing knowledge, good practices and experiences about the use of SMCS in disasters, even after the project has concluded.
- The main tool for maintaining the LINKS Community beyond the project's lifetime is the LCC, a web-platform for online sharing, and integrating lessons learned, ongoing experiences and knowledge both within and beyond the LINKS Community.
- Concrete actions for ensuring sustainability of the LCC, and in turn that of the LINKS Community, are presented.

## 8. CONCLUSION

This report is an update of the LINKS Community Strategy (D8.1), which is crucial to foster the engagement of key stakeholder target groups, maximising the project's impact and ensuring the uptake of its results.

The document firstly presents the main updates since D8.1. Secondly, it provides an overview on the LINKS Community, introducing and revisiting its general and specific objectives, providing an assessment of our progress towards the objectives for the LINKS Community at M25, and presenting its current composition. The purpose of engagement with the LINKS Community, and a roadmap for engaging with the LINKS target groups, are presented as well, detailing the main activities carried out so far by the Consortium and the upcoming ones.

A suggested and updated format for the LCW is introduced, taking into consideration the experiences of the first set of workshops organised in LINKS, the complexity of the COVID-19 situation, as well as the importance of these workshops for receiving feedback on the LINKS concepts, research process and results. The definition of the project partners' roles in the organisation of the LCWs is provided as well. The sustainability of the LINKS Community being a crucial point for the LINKS project, this report also introduces some concrete actions for ensuring the Community sustainability beyond the project's lifetime.

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## 10. ANNEX I: LINKS COMMUNITY DATABASE

**Table 8: LINKS Community Database**

Contact Name	Email	Organisation	Contact owner	Relevant Research Area	Contact Level	Stakeholder type	Communication Language	Location	Contacted by	Included in the Community
Name of Contact	Email Address	Name of Organisation	Who suggested this person?	Which WP or Research topic is related to this individual?	Local, Regional, National, European	Practitioner, Policy-maker, Civil Society, Business, Developer, Disseminator, Other	English or French	Where are they based?	Have they been contacted by LINKS? When and by whom?	Have they been added to the Community