



# LINKS

Strengthening links between technologies and society  
for European disaster resilience

## D9.2 UPDATED LINKS DISSEMINATION, EXPLOITATION AND COMMUNICATION STRATEGY 1

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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 and govern the uses of SMCS in 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

This deliverable seeks to provide an overview of the updated strategy for dissemination, exploitation, and communication activities to carry out in this second phase (M24 to M42) of the LINKS project, elaborated on the basis of the results of the first 18 months of the project. Considering the result and impact-based approach, we clearly provide a description of the interested target groups, by emphasizing the contributions they can give and the benefits of the project for them. Importance is given to the outcomes the project intends to reach (short/medium term) and the impacts (long term) in the economic, scientific, and societal domains. Impact-based indicators allow LINKS to identify the goals to achieve (according to the identified outcomes and impacts). The dissemination and communication activities are clearly described, as well as the

routes and the approach to exploit the LINKS results. The description of the organisation within the Consortium and the monitoring procedures allows to ensure the project's positive impact.

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## LIST OF ACRONYMS

| Acronym / Abbreviation | Description                                |
|------------------------|--|
| DEC                    | Dissemination, Exploitation, Communication |
| DCT                    | Disaster Community Technologies            |
| DMO                    | Disaster Management Organisation           |
| DMP                    | Disaster Management Processes              |
| DRPV                   | Disaster Risk Perception and Vulnerability |
| EC                     | European Commission                        |
| FB                     | Facebook                                   |
| LCC                    | LINKS Community Center                     |
| LIn                    | LinkedIn                                   |
| RG                     | ResearchGate                               |
| SMCS                   | Social Media and Crowdsourcing             |
| TG                     | Target Group                               |
| TW                     | Twitter                                    |
| UNDRR                  | United Nation for Disaster Risk Reduction  |
| UVP                    | Unique Value Proposition                   |

## DEFINITION OF KEY TERMS<sup>1</sup>

| Term          | Definition <sup>1</sup>   |
|---------------|---|
| Communication | Taking strategic and targeted measures for promoting the project and its results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange. <sup>2</sup> |
| Dissemination | The public disclosure of results by any appropriate means, including by scientific publications in any medium. <sup>2</sup>   |
| Exploitation  | The utilisation of results in further research activities other than those covered by the project, or in developing, creating and marketing a product   |

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

<sup>2</sup> Ala Mutka K. (2020). Dissemination and Exploitation in Horizon 2020. Retrieved December 16, 2020 from: [https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8\\_result-dissemination-exploitation.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8_result-dissemination-exploitation.pdf)

|                        |  |
|------------------------|--|
|                        | or process, or in creating and providing a service, or in standardisation activities. <sup>2</sup>   |
| Impact                 | Scientific, social, and economic changes over a longer period. <sup>3</sup>  |
| LINKS Community Center | An online platform providing user-friendly access to LINKS results and means to exchange knowledge and experiences   |
| LINKS Framework        | The LINKS Framework consolidates knowledge and experiences on the uses of social media and crowdsourcing in disasters, into products for 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. |
| Outcome                | Changes in behaviour, relationships, and activities, resulting from results. This includes the uptake or use of the project's results by different target groups. <sup>3</sup>   |
| Result                 | What is produced within the project, usually in the form of results within deliverables. <sup>3</sup>  |

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<sup>3</sup> Elaborated on the basis of: European Commission (2021). Horizon Europe Programme Guide. Retrieved December 16, 2021, from [https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide\\_horizon\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf).

## 1. INTRODUCTION

This deliverable provides an overview of the updated strategy for dissemination, exploitation and communication activities of the LINKS project. The general objective of the strategy is to provide the defined target groups with information about the project and results, making the latter available to them, and allowing their use in future activities.

The document represents an update of the strategy already defined in deliverable (D)9.1 (LINKS Dissemination, Exploitation and Communication Strategy), published in October 2020. The main differences concern:

- the categorisation of the target groups, that have been adjusted taking into account the division among practitioners, policy and decision makers, civil society, local communities, businesses, developers (researchers), and disseminators (media)<sup>4</sup>;
- a greater focus on the LINKS results and on the related outcomes and (scientific, economic and societal) impacts;
- a focus not only on quantitative indicators and targets concerning the implemented activities, but also on impact-based ones, that help assess the actual impact of the project results on the target groups;
- a clear distinction between 'Communication' and 'Dissemination', which allows us to define specific channels, materials and events with clear goals and related activities;
- a larger focus on the 'Exploitation' strategy, the result of the efforts of LINKS' Impact Task Force, which will be elaborated in section 7 and in the Annex II.

The update to the strategy was informed by feedback received by the REA and experts during the reviews of the project (M12, M18, M30), and from the evaluation report on dissemination, exploitation and communication activities (D9.4: First Status Report on the Development and Distribution of Dissemination Materials). On the basis of this, some changes will also be made in the implementation of the dissemination, exploitation, and communication activities, such as:

- strengthening the focus on how to exploit the results;
- defining key messages that allow to make clear the benefits of the results for the different target groups;
- increasing interaction through social media channels, ensuring that also the LINKS partners increase their commitment in the next period;
- making research results more accessible through the use of visual communication activities (e.g. infographics, videos, etc.);
- increasing the participation in events, as well as the scientific publications;
- developing policy recommendations based on LINKS' findings;

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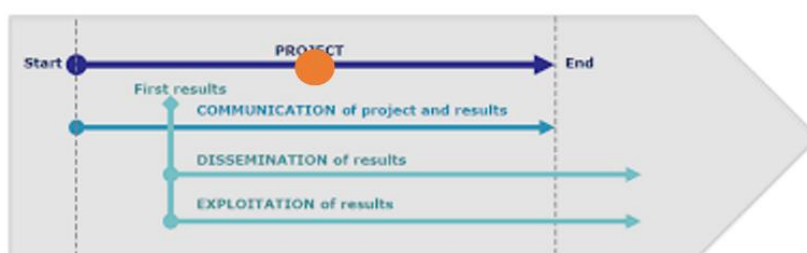
<sup>4</sup> A description of this new categorisation can be found in the Introduction of D9.4 (First Status Report on the Development and Distribution of Dissemination Material) as well as in D8.2 (Updated LINKS Community Strategy 1)

- strengthening the level of interaction with the target groups.

Section 2 of this document focuses on the identification of target groups, and key messages to convey for the different results. Section 3 focuses on the project outcomes, impacts and the identification of impact-based indicators to reach. Section 4 revolves around the organisation at the Consortium level for the implementation of activities (as well as the procedures for monitoring and evaluation). Sections 5, 6 and 7 focus on the communication, dissemination, and exploitation activities to implement. Section 8 includes the roadmap for the next months of the project. Section 9 summarises the main Conclusions. Finally, Annex I presents some indications for LINKS partners on adopting a diversity approach in their communication and dissemination activities, and Annex II the second round exploitation roadmap definition for one LINKS result.

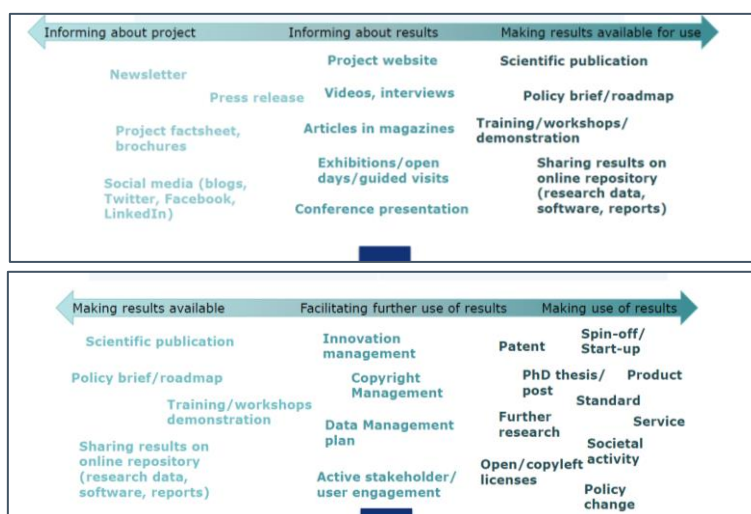
As a reminder regarding the aims of Communication, Dissemination, and Exploitation activities in H2020 projects, Figure 1 shows the period of implementation. As evident, Communication activities start before the results have become available, and last until the end of the project. Dissemination and Exploitation activities, however, are dependant of project results, and exceed the lifespan of the project. The orange circle indicates the phase LINKS is in at the moment.

**Figure 1: DEC Process in H2020 Projects**



Source: Ala Mutka K. (2020). Dissemination and Exploitation in Horizon 2020

**Figure 2: DEC Activities in H2020 Projects**



Source: Ala Mutka K. (2020). Dissemination and Exploitation in Horizon 2020

## 2. TARGET GROUPS: A RESULTS-BASED APPROACH

In this section we focus on how LINKS involves the target groups in the project, by defining the contributions that they give to the project and the benefit they can receive from the project results and activities. This section also revolves around the channels, materials, and events to reach them (section 2.1).

Moreover, by adopting a result-based approach, we identify for each result (whether *available* or *in progress*) which needs they intend to address, the key messages (per target group), and examples of activities to implement to reach that specific target group (section 2.2).

### 2.1 Increasing Interaction with Target Groups

The LINKS target groups have been redefined with respect to what was indicated in D9.1, based on the feedback received on the first version of the Dissemination, Exploitation, and Communication strategy. Table 1 provides a short description of the new categorisation of target groups and specifies how they contribute to the project and how they will benefit from LINKS results. Ultimately, the table shows how we reach the target groups (i.e. through the dissemination, exploitation and communication channels, that will be better explored in sections 5, 6 and 7).

**Table 1: LINKS Target Groups: Contributions to LINKS and Expected Benefits**

| TARGET GROUP  | CONTRIBUTION TO LINKS  | BENEFITS FROM LINKS  | HOW TO REACH THIS TARGET GROUP   |
|---|--|--|--|
| <b>Practitioners</b><br><i>Organisations specialised in giving assistance in emergency situations</i>   | Sharing needs and knowledge; validating results and raising awareness to other practitioners                       | Having support to make information to diverse community via SMCS - Social media and crowdsourcing more accessible; receiving information and data by an intergenerational public; considering ethic issues in their practices; understand how to apply SMCS in disaster risk management processes; better understanding the potential of disaster community technologies; increasing efficiency and effectiveness of operations during disasters | LINKS and partners websites, newsletter, leaflets, professional social media, online repositories, LINKS Community Center, infographics and videos, articles in specialised magazines, policy recommendations, specialised events, existing networks events, workshops |
| <b>Policy and Decision Makers</b><br><i>Legislative and executive bodies operating at different administrative levels</i>                       | Inspiring policy needs; validating results; sharing examples of local/national guidelines, policies, and standards | Having recommendations on how to implement communication campaigns for vulnerable people and how to integrate them in policies receiving information and data by an intergenerational public; receiving support on technologies in disaster risk management; increasing understanding regarding standards and procedures on SMCS in disaster management  | LINKS and partners websites, newsletter, professional social media, online repositories, LINKS Community Center, infographics and videos, articles in specialised magazines, policy recommendations, specialised events, existing networks events, workshops           |
| <b>Civil Society</b><br><i>Citizens who at times of crises can provide important data and information, such as the Virtual Operations Teams</i> | Testing and validating the tools proposed by LINKS; sharing needs and experiences in emergency situations (also in | Obtaining awareness regarding the opportunities of SMCS in emergency situations (also in relation to the information regarding vulnerable groups); accessing to local-based and self-organised information; improving effective and efficient access to information during emergency situations, embedding the gained information into their practices   | LINKS and partners websites, LINKS and partners social media, leaflets, articles in informative magazines, informative events, infographics and videos, policy recommendations, workshops  |

| TARGET GROUP  | CONTRIBUTION TO LINKS   | BENEFITS FROM LINKS   | HOW TO REACH THIS TARGET GROUP  |
|---|---|---|---|
|   | relation to vulnerable groups)  |   |   |
| <b>Local Communities</b><br><i>Groups linked by social and organisational relationships at the local level deriving from common interests, values and needs</i> | Testing and validating the tools proposed by LINKS; sharing needs and experiences in emergency situations (also in relation to vulnerable groups) | Obtaining awareness regarding the opportunities of SMCS in emergency situations (also in relation to the information regarding vulnerable groups); accessing to local-based and self-organised information; improving effective and efficient access to information during emergency situations, embedding the gained information into their practices                    | LINKS and partners websites, LINKS and partners social media, leaflets, articles in informative magazines, informative events, infographics and videos, policy recommendations, workshops                       |
| <b>Businesses</b><br><i>Small, medium and big enterprises in the field of social media and technologies</i>   | Exploiting the LINKS results, allowing to reach an economic impact in different sectors   | Having clear indications regarding the potential of the market; (for solutions providers) having a support on how to create more accessible, customised and effective technological solutions in disaster risk reduction field; having a vocabulary and a framework for discussing resilience in the context of SMCS in private and public organisations                  | LINKS and partners websites, newsletter, professional social media, online repositories, LINKS Community Center, infographics and videos, articles in specialised magazines, specialised events                 |
| <b>Developers</b><br><i>Individual researchers, universities and academic groups working on different aspects in the field of disasters</i>                     | Exchanging similar research findings; giving feedback on the research outputs; giving on the three  | Accessing to scientific results of the project in order to strengthen the knowledge regarding the topics of the project; improving knowledge on the impacts of risk perception in different cases; improving knowledge on the engagement of vulnerable groups in disaster situations; having a dynamic perspective on the use of SMCS in disasters; facing the scientific | LINKS and partners websites, newsletter, professional social media, online repositories, LINKS Community Center, infographics and videos, scientific publications, scientific conferences, trainings, workshops |

| TARGET GROUP   | CONTRIBUTION TO LINKS                     | BENEFITS FROM LINKS   | HOW TO REACH THIS TARGET GROUP   |
|--|---|---|--|
|  | knowledge domains                         | results according to an ethical approach; having a methodology to research on disaster management processes   |  |
| <b>Disseminators</b><br><i>Media informing about disasters</i> | Providing information to a large audience | Obtaining data and information regarding disasters and contributing to the related knowledge with the information they have (especially at local level) | LINKS and partners websites, newsletter, press release, informative events, infographics, and videos |



## 2.2 A Targeted Approach of Communicating, Disseminating and Exploiting Results

In this section we focus more on the preliminary results available and in progress in LINKS, by linking them to the target groups. The definition of the related key messages allows also to identify some examples of dissemination and communication activities to implement to convey these specific messages. Specific information on exploitation (especially regarding the ownership of the results and the related exploitation routes) are provided in section 7.

Regarding the results, there is a strong interconnection between the LINKS Framework, the LINK Community Center, and all the other results. The provided list is not exhaustive, it will be adjusted during the project. The focus is on the assessment of these results with the community in terms of their usefulness.

Moreover, please consider that some of the mentioned results are also considered as real products, within actionable outcomes by persons in the Disaster Risk Reduction community (e.g. the Education Toolkit, the LINKS Community Center, etc.). In this deliverable we refer to them only as “results”, but in other deliverables (e.g. in D5.3) some results are also indicated as “products”.

Before detailing the LINK key messages for each target group (Table 2), it is important to set the general key messages of the project:

1. LINKS provides user-friendly products to assist stakeholders working in disaster risk reduction, in using social media and crowdsourcing to improve communication and engagement with citizens.
2. The LINKS Community Center is one-stop-shop for knowledge and resources for using social media and crowdsourcing in disasters.
3. LINKS Community Center is an open, web-based platform that gives access to technologies, guidelines, use cases, and further resources for applying social media and crowdsourcing in disaster risk management.
4. The LINKS Framework helps to guide relevant stakeholders to focus on what is important when using social media and crowdsourcing to improve communication and engagement with citizens in all phases of disasters.

**Table 2: LINKS Results per Target Group: Key Messages**

| LINKS RESULTS  | TARGET GROUPS | KEY MESSAGES   | DISSEMINATION, EXPLOITATION AND COMMUNICATION ACTIVITIES (examples)  |
|--|---------------|--|--|
| <p><b>Including citizens Handbook</b> <i>A set of instructions, guidelines, examples, check-lists, exercises to use existing social media and crowdsourcing and develop new crowdsourcing initiatives to promote more inclusive approaches in Disaster Risk Management (IN PROGRESS)</i></p> | Developers    | The 'Including Citizens Handbook' offers a comprehensive approach to discuss vulnerability and perception in relation to SMCS in disasters   | Magazines (e.g.: PreventionWeb), Scientific conferences, lectures (e.g.: EGU General Assembly, Royal Geographical Society Annual International conference, Northern European Conference on Emergency and Disaster Studies 2022, Accessibility Days 2022), Paper (e.g.: on 'Geotema' and 'Sustainability' journals), etc. |
|  | Practitioners | The 'Including Citizens Handbook' guides practitioners in promoting more inclusive procedures in disaster risk management and in disaster communication using SMCS, such as in developing more inclusive apps or crowdsourcing platforms | Sectoral and Scientific events and conferences (e.g. EENA 2022, CERIS-Community of European Research and Innovation for Security events), LINKS Community Workshops, Existing networks (e.g.: FEU, DRS-01 Cluster), etc.   |
|  | Policy makers | The 'Including Citizens Handbook' guides decision makers in defining priorities and more effective and inclusive information and communication strategies  | Magazines (e.g.: 'PreventionWeb'), Sectoral events and conferences (e.g.: 'European Forum for Disaster Risk Reduction 2022'), Policy recommendation, Networks (e.g. DRS-01 Cluster roundtables), etc.  |
|  | Businesses    | The 'Including Citizens Handbook' provides indications on how to produce more inclusive apps/platforms   | Informative events and conferences (e.g.: Accessibility Days 2022), LCW – LINKS Community Workshops (LCW)  |
| <p><b>Educational Toolkit</b> <i>Set of tools (accessible online and in person) to develop the risk awareness in minors using social media and crowdsourcing (IN PROGRESS)</i></p>   | Developers    | The 'Educational Toolkit' provides new educational paths and experiences   | Informative events and conferences (e.g.: 'Associazione Italiana Insegnanti di Geografia' conference 2022), Scientific journals (e.g. 'J-readings', 'Ambiente Società e Territorio'), EUGEO – Association of Geographical Societies in Europe, etc.  |
|  | Policy makers | The 'Educational toolkit' offers ideas to increase the intergenerational dialogue and promote more inclusive strategies  |  |
|  | Practitioners | The 'Educational Toolkit' provides educational paths to increase awareness and resilience in minors and promote an intergenerational dialogue using SMCS   | Informative magazines (e.g.: 'Emergenza 2.0', 'Italian Civil Protection' journal, local journals), Sectoral events (e.g.: European Forum of Disaster Risk Reduction), etc.   |

|   |                   |   |  |
|---|-------------------|---|--|
|   | Civil Society     | The 'Educational Toolkit' offers educational paths and experiences for families to improve their resilience and awareness in front of risks and participate to risk communication and disaster risk reduction | Events ('Associazione Italiana Insegnanti di Geografia' conference 2022), publications ('Ambiente Società e Territorio', AIIG journal), AIIG channels of communication, training for teachers organized by AIIG, etc.  |
|   | Local Communities | The 'Educational Toolkit' offers educational paths and experiences for local communities to improve their resilience and awareness in front of risks  | Events ('Associazione Italiana Insegnanti di Geografia' conference 2022), publications ('Ambiente Società e Territorio', AIIG journal), AIIG channels of communication, training for teachers organized by AIIG, etc.  |
| <b>Pocket Ethics Guidelines</b><br><i>A checklist and guide on how to ensure ethics in research and communication through social media and crowdsourcing, especially with vulnerable groups (IN PROGRESS)</i>                         | Developers        | The 'Pocket Ethics Guidelines' is a practical guide on how to take care about ethics in research with vulnerable groups   | Lessons in different bachelor courses (University of Copenhagen, University of Padova, University of Madeira, University of Florence), Magazines ('Giornale Protezione Civile Italiana'), etc.   |
|   | Practitioners     | The 'Pocket Ethics Guidelines' provide procedures on how to communicate in a more accessible way and how to involve vulnerable people in research using SMCS  |  |
| <b>'Resilience Wheel'</b><br><i>A visual model for holistically framing what organisations need to consider and prioritise when applying social media and crowdsourcing in disaster risk management. It has two layers, combining</i> | Practitioners     | The 'Resilience Wheel' allows to holistically frame what organisations need to consider and prioritise when applying SMCS in disaster risk management   | Informative and Scientific events and conferences (e.g.: 'Earth Systems Governance Conference', 'Hungarian Red Cross conference on effective response', etc.), Existing networks (e.g. DRMKC- Disaster Risk Management Knowledge Center, DRS-01 Cluster, PREPARE Cluster), etc.              |
|   | Policy makers     | The 'Resilience Wheel' provides a visual and condensed overview of how SMCS may support decisions on disaster resilience  | Magazines (e.g.: PreventionWeb), Informative and Scientific events and conferences (e.g.: 'EFDRR 2022', 'Hungarian Red Cross conference on effective response', 'UNDRR Global Platform 2022'), Policy recommendations, Trainings, Networks (e.g. DRMKC, DR01 Cluster, PREPARE Cluster), etc. |

|   |                             |  |  |
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| <p><i>the institutional drivers of disaster resilience (learning, decision-making, vulnerability and credible information) with the use of social media and crowdsourcing (IN PROGRESS)</i></p>   | <p><b>Developers</b></p>    | <p>The 'Resilience Wheel' provides a tool for assessing the use of SMCS in disasters. Accompanied with the protocol for interviews, it provides a tool for systematic, yet flexible and localized, ways of researching the role of SMCS in disaster risk management processes</p>                            | <p>Lectures (Lecture at Lund University, The Earth System Governance conference, Lunch Talk with SIMA green student organizations at KU, COPE socials 2022, NEEDS 2022), Paper (planned in 'New media and Society', 'International Journal Disaster Risk Reduction', 'International Journal Disaster Risk Science', 'Disasters Prevention and Management', 'Disasters', 'Nature communications'), etc.</p> |
|   | <p><b>Businesses</b></p>    | <p>The 'Resilience Wheel' allows to holistically frame and disseminate what organizations need to consider and priorities when applying SMCS in disaster risk management. Existing guidelines, policies and frameworks guide the use of SMCS in disasters</p>  | <p>Informative events and conferences (e.g.: 'EFDRR2022', 'UNDRR Global Platform 2022'), etc.</p>  |
| <p><b>Social Media and Crowdsourcing Technology Library</b><br/><i>A library that gathers and structures information about existing social media and crowdsourcing technologies to grasp the overwhelming market and to guide the selection and application of these technologies (IN PROGRESS)</i></p> | <p><b>Practitioners</b></p> | <p>The 'Social Media and Crowdsourcing Technology Library' provides a highly needed overview about the market, gathers and structures the relevant information about these technologies and thus guides the selection and the application of a suitable technology for disaster management organizations</p> | <p>Magazines of practitioner associations (e.g. 'Firefighter magazine'), Informative and Scientific events and conferences ('EENA 2022'), LCW - LINKS Community Workshops, Existing networks (FEU, Global Disaster Preparedness Center, EFA, vfdb, VdF, AGBF), etc.</p>  |
|   | <p><b>Policy makers</b></p> | <p>The 'Social Media and Crowdsourcing Technology Library' provides a highly needed overview about the market, gathers and structures the relevant information about these technologies and thus guides the selection of a suitable technology for authorities</p>   | <p>Informative and Scientific events and conferences ('EENA 2022', 'ISCRAM 2022', DPPI Conference), Policy recommendations, Trainings and workshops (LCW, BABZ), Existing networks (DRMKC, BBK, DKKV, DSTGB), mailing lists of federal and state offices, etc.</p>   |
|   | <p><b>Developers</b></p>    | <p>The 'Social Media and Crowdsourcing Technology Library' provides a scientific derived categorization schema in order to structure the information about the technologies and create comparability</p>   | <p>Informative and Scientific events and conferences (e.g.: ISCRAM 2022, EENA 2022, ITDRR), Scientific publications (e.g.: ISCRAM, EENA, ITDRR), Training and workshops (LCW), Existing networks (CEDIM, Institute of Rescue Engineering and Hazard Prevention TH Köln, DGSMTech), LCC</p>   |

|   |               |   |   |
|---|---------------|---|---|
|   | Civil Society | 'Social Media and Crowdsourcing Technology Library' provides technologies, solutions and examples on different crowdsourcing platforms and thus creates the opportunity for a local community to inform itself according to its needs   | Existing networks (VOST), LCC, already widespread crowdsourcing applications ('Essen packt an'), warning applications (NINA, KATWARN, BIWAPP), etc.   |
|   | Businesses    | 'Social Media and Crowdsourcing Technology Library' provides businesses an up-to-date market overview as well as the possibility to promote their own technologies by e.g. keeping information up to date   | Informative events and conferences ('EENA2022', 'ISCRAM2022'), Training and workshops (LCW), Services/Products (DCT from businesses), LCC, Homepages and social media from businesses, etc.   |
|   | Disseminators | The 'Social Media and Crowdsourcing Technology Library' is not primarily aimed at disseminators; however, it also provides an overview about suitable technologies which can help to obtain the latest information from social media (monitoring) and to also publish information on different channels | German Media Association (DMV)  |
| <b>Social Media and Crowdsourcing Guideline Library</b><br><i>It offers the possibility to access to guidelines on how to use SMCS technologies in a disaster scenario, categorized with an evolving set of categories</i><br>(IN PROGRESS) | Practitioners | The 'Social Media and Crowdsourcing Guidelines Library' provides an overview of guidance documents including technologies and processes   | Magazines of practitioner associations (e.g. 'Firefighter magazine'), Informative and Scientific events and conferences ('EENA 2022'), LCW - LINKS Community Workshops, Existing networks (FEU, Global Disaster Preparedness Center, EFA, vfdb, VdF, AGBF), etc                     |
|   | Developers    | The 'Social Media and Crowdsourcing Guidelines Library' library provides an overview of guidance documents including technologies and processes. A literature bibliography, articles, conferences, and events as well as relevant projects and networks in SMCS technologies are provided               | Informative and Scientific events and conferences (e.g.: ISCRAM 2022, EENA 2022, ITDRR), Scientific publications (e.g.: ISCRAM, EENA, ITDRR), Training and workshops (LCW), Existing networks (CEDIM, Institute of Rescue Engineering and Hazard Prevention TH Köln, DGSMTech), LCC |

|  |                               |  |   |
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|  | Policy Makers                 | The 'Social Media and Crowdsourcing Guidelines Library' provides an overview of guidance documents including technologies, processes, and regulatory frameworks  | Informative and Scientific events and conferences ('EENA 2022', 'ISCRAM 2022', DPPI Conference), Policy recommendations, Trainings and workshops (LCW, BABZ), Existing networks (DRMKC, BBK, DKKV, DSTGB), mailing lists of federal and state offices, etc. |
| <b>LINKS Framework</b><br><i>The LINKS Framework consolidates knowledge and experiences on the uses of social media and crowdsourcing in disasters, into products for 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. (IN PROGRESS)</i> | Practitioners                 | The 'LINKS Framework, as a strategic planning tool, guides practitioners to apply SMCS in disasters. It provides both access to ad-hoc products (e.g. the Including Citizens Handbook) and 'templates' for thinking around specific thematic | Magazines of practitioner associations (e.g. PreventionWeb), Informative and Scientific events and conferences ('EENA2022'), Existing networks (e.g.: CMINE), etc.  |
|  | Developers                    | The 'LINKS Framework' has an 'academic corner' with relevant resources for researchers: e.g. literature on the uses of SMCS and pocket ethics guidelines; protocols (interview protocol) and list of academic references                     | Informative and Scientific events, conferences (e.g.: 'NEEDS 2022', 'ISCRAM 2022'), Paper (e.g. in 'IJDRR'), etc.   |
|  | Disseminators                 | NOTE: there is no key message for the media in general as it really depends on the type of media. A good starting point may be the key message for practitioners.  | Press releases to specialised on-line and offline media outlets in each country of the case-assessment  |
|  | Policy makers                 | Through the 'LINKS Framework', a repository of relevant guidelines on the use of social media and crowdsourcing in disasters can be accessed   | Magazines (e.g.: PreventionWeb), Informative and Scientific events and conferences (e.g.: 'Science for Policy-JRC Conference'), Policy recommendations, Networks (e.g. DRMKC), etc.   |
|  | <b>LINKS Community Center</b> | Practitioners  | The 'LINKS Community Center' brings together different stakeholders including other practitioners (LINKS Community) in one user-friendly and flexible web-based   |

|  |                   |   |   |
|--|-------------------|---|---|
| <p><i>An online platform providing user-friendly access to LINKS results and means to exchange knowledge and experiences</i><br/>(ALREADY AVAILABLE IN DRAFT STATUS)</p> |                   | platform and enables them to exchange knowledge and experiences and to access, discuss and assess LINKS results on the usage of SMCS in disasters in a tailored fashion   | (e.g. in the context of LINKS Community Workshops), Existing networks (e.g.: vfdb, VdF-NRW), LCC as a demonstrator, etc.  |
|  | Policy makers     | The 'LINKS Community Center' provides tailored access to the relevant resources on the usage of SMCS in disasters. It can also be used to establish contacts with the relevant stakeholders, i.e. practitioners | Training and workshops (e.g. in the context of LINKS Community Workshops), LCC as a demonstrator, etc.  |
|  | Developers        | The 'LINKS Community Center' provides a user-friendly and motivating community environment for learning and sharing knowledge on the usage of SMCS in disasters   | Informative and Scientific events and conferences (e.g.: vfdb-Jahresfachtagung, Virtual Fires Congress), Scientific publications (e.g. for the 'ISCAM 2022' conference), Policy recommendations, Training and workshops (e.g. in the context of LINKS Community Workshops), LCC as a demonstrator, etc. |
|  | Civil Society     | The information provided in the 'LINKS Community Center' helps motivate and inspire citizens to use social media and crowdsourcing during disasters   | Informative and Scientific events and conferences (e.g. activities in the context of the 'Digitale Modellregion OWL' and 'safety days'), Training and workshops (e.g. in the context of LINKS Community Workshops), LCC as a demonstrator, etc.   |
|  | Local Communities | The information provided in the 'LINKS Community Center' helps motivate and inspire local communities to use social media and crowdsourcing during disasters  | Informative and Scientific events and conferences (e.g. activities in the context of the 'Digitale Modellregion OWL' and 'safety days'), Training and workshops (e.g. in the context of LINKS Community Workshops), LCC as a demonstrator, etc.   |
|  | Disseminators     | The guidelines section in the 'LINKS Community Center' can provide guidance on how to report on local emergencies on social media and how to react to comments of users   | Social Media accounts of local disaster management organizations, LCC as a demonstrator, etc.   |
|  | Businesses        | The 'LINKS Community Center' provides a market overview regarding technologies for SMCS and facilitates access to materials on how to produce more inclusive apps/platforms                                     | Informative events and conferences (e.g. ISCRAM), Services/Products (market overview of DCTs for SMEs), LCC as a demonstrator, direct messages to the relevant and involved businesses (i.e. DCT providers), etc.   |

### 3. OUTCOMES, IMPACTS AND INDICATORS

Outcomes concern the changes that the LINKS results intend to have on the target groups in terms of behaviours, activities, and relationships. Table 3 summarises them. Outcomes are functional to the achievement of the scientific, societal, and economic impacts indicated in Table 4.

Table 3: LINKS Outcomes

| Target Groups | Outcomes   |
|---------------|--|
| Practitioners | <ul style="list-style-type: none"> <li>Practitioners apply tools/practices to make information/communication via SMCS more accessible to diverse communities and vulnerable groups (<b>Including Citizens Handbook</b>).</li> <li>Practitioners are more informed on the potential key role that children can play for better DRM strategies and how to involve and communicate with them, and they could be more willing to promote intergenerational participatory actions (<b>Including Citizens Handbook, Educational Toolkit, Pocket Ethics Guidelines</b>).</li> <li>They have an overview of the drivers that an organization can work with to support their disaster management processes using social media and crowdsourcing. As part of this, pushing organizations to think holistically about the use of social media and crowdsourcing in disaster management processes and to support the relationship between the technologies themselves and the context they are implemented in (<b>Resilience Wheel</b>).</li> <li>They have an overview of existing knowledge and formal practices on using social media and crowdsourcing as depicted in guidelines, regulatory frameworks and policies (<b>Resilience Wheel</b>).</li> <li>Practitioners recognize more likely the potentials and benefits of technologies (Social Media and Crowdsourcing Technology Library, Social Media and Crowdsourcing Guideline Library).</li> <li>Practitioners should be able to get a better understanding of the market and therefore better select and apply suitable social media and crowdsourcing technologies according to their needs (<b>Social Media and Crowdsourcing Technology Library, Social Media and Crowdsourcing Guideline Library</b>).</li> </ul> |



|               |   |
|---------------|---|
|               | <ul style="list-style-type: none"> <li>• Practitioners can further make use of the knowledge provided, which contains core information and context about social media and crowdsourcing technologies (<b>Social Media and Crowdsourcing Technology Library, Social Media and Crowdsourcing Guideline Library</b>).</li> <li>• Practitioners can get access products and to templates for thinking through specific issues on the application of SMCS. Through the LINKS Framework, they can take more informed decisions (<b>LINKS Framework</b>).</li> <li>• Practitioners improve efficiency and effectiveness in the usage of social media and crowdsourcing before, during and after disasters. This could be through the help of a technology they've discovered using the LCC, through a new guideline that has improved their efficiency or through a contact to another organization they established using the LCC (<b>LINKS Community Center</b>).</li> </ul>   |
| Developers    | <ul style="list-style-type: none"> <li>• Researchers share updating on the knowledge about how to involve children in DRM processes (<b>Including Citizens Handbook, Educational Toolkit</b>).</li> <li>• Researchers study more on social vulnerability and DRP in relation to the use of SMCS in disasters adopting a dynamic perspective (<b>Including Citizens Handbook, Pocket Ethics Guidelines, Educational Toolkit</b>).</li> <li>• Researchers apply a systematic approach to assess the use of social media and crowdsourcing in disaster risk management through qualitative interviews (the interview protocol) (<b>Resilience Wheel</b>).</li> <li>• The Social Media and Crowdsourcing Technology Library is providing a unique, up-to-date overview about the overwhelming market. Furthermore, a scientific description schema will be provided, which can be also used and adapted (<b>Social Media and Crowdsourcing Technology Library, Social Media and Crowdsourcing Guideline Library</b>).</li> <li>• Researchers can use the same methods applied in the LINKS cases and can get access to useful resources (e.g. literature review) (<b>LINKS Community Center, LINKS Framework</b>).</li> </ul> |
| Policy Makers | <ul style="list-style-type: none"> <li>• Decision makers consider the uptake of DRPV recommendations into their communication campaigns and existing DRR policies (<b>Including Citizens Handbook</b>).</li> </ul>  |

|               |   |
|---------------|---|
|               | <ul style="list-style-type: none"> <li>• Decision makers are more informed on the potential key role that children can play for better DRM strategies and how to involve and communicate with them, and they could be more willing to promote intergenerational participatory actions (<b>Including Citizens Handbook, Educational Toolkit</b>).</li> <li>• Guides for decision makers in using existing tools in a more effective way and to promote more inclusive apps/platforms that could potentially result in better management of the resources and of communication campaigns (<b>Including Citizens Handbook</b>).</li> <li>• Policy makers access to a common language/vocabulary for discussion and approaching technology and institutions in DRM efforts. They attempt to use the pathways provided towards good governance mechanisms for SMCS use in DRM (<b>Resilience Wheel</b>).</li> <li>• Policy makers use LINKS results as a source/background for national and local level policies on SMCS and as a basis to ensure integration with what already exists in terms of guidelines, policies and legal frameworks (<b>Resilience Wheel</b>).</li> <li>• Innovative policies are embedded into government decision making (<b>Resilience Wheel</b>).</li> <li>• Policy makers can integrate the information gained from social media and crowdsourcing technologies into decision-making processes (<b>Social Media and Crowdsourcing Technology Library, Social Media and Crowdsourcing Guideline Library</b>).</li> <li>• The repository of guidelines offers a comprehensive mapping of relevant documents which is useful for policy analyses and to identify potential gaps (<b>LINKS Framework</b>).</li> <li>• Policy makers can access consolidated policy guidance regarding the usage of social media and crowdsourcing during disasters, leading to better policy decisions (<b>LINKS Community Center</b>).</li> </ul> |
| Civil Society | <ul style="list-style-type: none"> <li>• Citizens are more informed on the potential of children in DRM strategies and how to stay informed (<b>Educational Toolkit</b>).</li> <li>• Citizens are more informed (higher awareness/risk perception) and willing to react in an efficient way (<b>Educational Toolkit</b>).</li> <li>• Citizens can learn and apply crowdsourcing solutions in a disaster (<b>Social Media and Crowdsourcing Technology Library</b>).</li> <li>• The usage of social media and crowdsourcing during disasters is established or improved using results from LINKS (<b>LINKS Community Center</b>).</li> </ul>   |

|                   |   |
|-------------------|---|
| Local Communities | <ul style="list-style-type: none"> <li>• Communities are more informed on the potential of children in DRM strategies and how to stay informed (<b>Educational Toolkit</b>).</li> <li>• Communities are more informed (higher awareness/risk perception) and willing to react in an efficient way (<b>Educational Toolkit</b>).</li> <li>• The usage of social media and crowdsourcing during disasters in local communities is established or improved using results from LINKS (<b>LINKS Community Center</b>).</li> </ul>  |
| Businesses        | <ul style="list-style-type: none"> <li>• Businesses create more accessible and effective technological solutions (<b>Including Citizens Handbook</b>).</li> <li>• Businesses increase their awareness on features that can be used in an event of a disaster and can adapt these into their own developments, helping to increase safety (<b>Resilience Wheel</b>).</li> <li>• Businesses see increased sales of technologies suitable for usage of social media and crowdsourcing during disasters and improve their technologies based on the needs of the community (<b>Social Media and Crowdsourcing Technology Library, LINKS Community Center</b>).</li> </ul> |
| Disseminators     | <ul style="list-style-type: none"> <li>• Social Media and Crowdsourcing Technology Library could also contain technologies, which can support the work of disseminators (<b>Social Media and Crowdsourcing Technology Library</b>).</li> <li>• Disseminators can improve communication regarding local emergencies on social media (<b>LINKS Community Center</b>).</li> </ul>  |

Impact concerns the long term changes that LINKS intends to achieve. Table 4 indicates the scientific, societal, and economic impacts that our project intends to reach, with the related impact-based indicators aimed at measuring LINKS' strategic impacts. In the column 'Impacts', also the results that contribute to the achievement of the different impacts are indicated, by emphasizing if they contribute strongly ('high'), moderately ('medium') or superficially ('low'). The table also specifies means of monitoring while the progressive achievements will be analysed in the next months (M30, M36, M42). Specific information on exploitation (especially regarding the ownership of the results and the related exploitation routes) are provided in section 7.

**Table 4: LINKS Impacts, Impact-based indicators and means of evaluation of LINKS**

| IMPACTS   | IMPACT-BASED INDICATORS   | MEANS OF EVALUATIONS   |
|---|---|--|
| <p><b>SCIENTIFIC:</b><br/>Fostering multidisciplinary knowledge on the application of SMCS in disaster risk management, to improve the impacts of SMCS in the management of disasters. This includes a novel way of study SMCS by the research community</p> <p><i>Results that contribute:</i></p> <ul style="list-style-type: none"> <li>• Including citizens Handbook, Pocket Ethics Guidelines, Resilience Wheel (high)</li> <li>• Educational Toolkit, SMCS Technology Library, Guidelines about the usage of SMCS technologies, LINKS Framework, LINKS Community Center (medium)</li> </ul> | <ul style="list-style-type: none"> <li>• Number of researchers (coming from different fields) declared their scientific knowledge on the LINKS topics increased</li> <li>• Use of LINKS scientific contributions in external academic contributions</li> <li>• Use of LINKS scientific contributions in multidisciplinary fields</li> <li>• Number of external researchers involved in LINKS activities</li> <li>• Number of LINKS spin-off research projects approved</li> <li>• Number and typology of course/curriculum implemented on LINKS topics</li> <li>• Number of students working on LINKS-related topics</li> </ul> | <ul style="list-style-type: none"> <li>• Publication monitoring procedures</li> <li>• Citations of the academic contributions realised</li> <li>• Engagement of students on the LINKS topics</li> <li>• Implementation of LINKS outputs into courses and curriculum</li> <li>• Analysis of the types/numbers of LINKS Community members engaging in LINKS activities</li> <li>• Project proposals submitted and approved</li> <li>• Feedback received during the scientific events</li> <li>• Feedback received during lectures/training sessions on the LINKS topics</li> </ul> |
| <p><b>SOCIETAL:</b></p> <ul style="list-style-type: none"> <li>• Shortening the divide between researchers, practitioners, policy makers and communities, by sharing the knowledge related to SMCS in disasters</li> </ul>  | <ul style="list-style-type: none"> <li>• Number of practitioners and policy makers declared their knowledge on the LINKS topics increased</li> </ul>  | <ul style="list-style-type: none"> <li>• Feedback collected during the meetings with children</li> <li>• Feedback collected during the LINKS Community Workshops</li> </ul>  |

| IMPACTS  | IMPACT-BASED INDICATORS  | MEANS OF EVALUATIONS   |
|--|--|--|
| <ul style="list-style-type: none"> <li>• Improving the disaster resilience at the local level through SMCS by enabling practitioners and policy makers to take more informed decisions about the use of SMCS in all the phases of DRM</li> <li>• Improving information and communication for citizens and the inclusion of diverse people and groups (e.g. for languages, cultures, abilities, etc.) in all the phases of DRM</li> </ul> <p><i>Results that contribute:</i><br/>Including citizens Handbook, Educational Toolkit, Pocket Ethics Guidelines, Resilience Wheel, SMCS Technology Library, Guidelines about the usage of SMCS technologies, LINKS Framework, LINKS Community Center (high)</p> | <ul style="list-style-type: none"> <li>• Number of local communities' members and civil society declared their knowledge on the LINKS topics increased</li> <li>• Number of practitioners and policy makers become familiar with the LINKS products</li> <li>• Effective application of the LINKS products in the local communities</li> <li>• Number of practitioners, policy makers and local communities declared the LINKS products useful in their practices/in their local contexts</li> <li>• Number of practitioners, policy makers and local communities available in the future to apply LINKS products in their practices/in their local contexts</li> <li>• Actual/Future application (/integration in already available practices) of the LINKS products to improve communication on disaster topics (including vulnerable groups and children)</li> <li>• Actual/Future application of the LINKS products (/integration in already available practices) to increase citizens and volunteers engagement in disasters</li> </ul> | <ul style="list-style-type: none"> <li>• Feedback collected during the LINKS Advisory Committee meetings</li> <li>• Feedback collected during the LINKS Cases assessments</li> <li>• Analysis of the types/numbers of LINKS Community members engaging in LINKS activities</li> <li>• Analysis of communication/dissemination activities:</li> <li>• engagement through LINKS social media (e.g.: followers, reactions, sharing)</li> <li>• engagement through the newsletter (typology of subscribers)</li> <li>• engagement through events (number and typology of participants, feedback received, activated collaborations, etc.)</li> <li>• interaction with similar projects (e.g.: joint participation in events, joint exploitation activities, etc.)</li> </ul> |

| IMPACTS   | IMPACT-BASED INDICATORS   | MEANS OF EVALUATIONS   |
|---|---|--|
| <p><b>ECONOMIC:</b><br/>Increasing the knowledge about the benefits of disaster community technologies in improving efficiency in disaster management processes. This will contribute to strengthening its attractiveness both for technology providers and disaster management organisations.</p> <p><i>Results that contribute:</i></p> <ul style="list-style-type: none"> <li>• Including citizens Handbook, SMCS Technology Library, Guidelines about the usage of SMCS technologies, LINKS Community Center (high)</li> <li>• LINKS Framework (medium)</li> <li>• Educational Toolkit, Pocket Ethics Guidelines, Resilience Wheel (low)</li> </ul> | <ul style="list-style-type: none"> <li>• Number of stakeholders who have decided to become part of the LINKS Community</li> <li>• Number of businesses and disaster organisation declared their knowledge about disaster technologies increased</li> <li>• Number of organisations declared useful the Technology/Guidelines Library</li> <li>• Number of organisations declared they are using Technology/Guidelines Library</li> <li>• Number of organisation/businesses represented in the Technology Library</li> </ul> | <ul style="list-style-type: none"> <li>• Feedback collected during the LINKS Community Workshops, LINKS Advisory Committee, and other activities</li> <li>• Analysis of the types/numbers of LINKS Community members engaging in LINKS activities</li> </ul> |

The impact-based evaluation framework presented in Table 4 is not separated from the quantitative evaluation presented in Table 5. As mentioned in the above presented table, the dissemination and communication activities that will be described in the next section represent, together with additional activities conducted within the project (such as the assessment activities of the LINKS Cases) means of evaluation of the achieved impacts of the project. For this reason, the KPIs reported in Table 5 are considered suitable for the impact-based (qualitative) assessment of the project results.

## 4. DEC ACTIVITIES WITHIN THE CONSORTIUM

In this section, we describe the implementation of dissemination, exploitation, and communication activities within the Consortium, to make the strategy effective and to ensure that interested stakeholders can reach the LINKS results.

### 4.1 DEC Targets

To reach the impacts identified in Table 4, the proper performance of dissemination, exploitation, and communication activities is necessary. In Table 5 (which is an update of Table 13 in D9.1), the KPIs with the targets at M30 and at M36 are indicated. The results of the corresponding monitoring activities are partially included in D1.3 ('Periodic technical and financial report 2'), delivered in M30, and will be included in D9.5 ('Second status report on the development and distribution of dissemination materials'), to be delivered in M37. Table 5 will be updated to include the targets to reach at M42 (end of the project) in D9.3 ('Updated LINKS dissemination, exploitation and communication strategy 2'), to be delivered in M39.

As already mentioned in section 3, the quantitative evaluation presented in Table 5 is not separated from the impact-based evaluation framework presented in Table 4. The KPIs presented in this table, referring to the dissemination and communication activities represent, together with additional activities conducted within the project (such as the assessment activities of the LINKS Cases) means of evaluation of the achieved impacts of the project. For this reason, the KPIs reported in Table 5 are considered suitable for the impact-based (qualitative) assessment of the project results, as presented in Table 4.

**Table 5: KPIs and Targets to reach at M30 and M36**

| DEC CHANNELS AND EVENTS                                       | KPIS                                    | TARGETS (M30) |         |           | TARGETS (M36) |         |           | MEANS OF MONITORING (FREQUENCY)  |
|---|---|---------------|---------|-----------|---------------|---------|-----------|--|
|   |   | Poor          | Good    | Excellent | Poor          | Good    | Excellent |  |
| LINKS and Partners Websites                                   | LINKS website visitors per month        | <120          | 120-170 | >170      | <150          | 170-200 | >200      | WordPress Analytics (monthly)  |
|   | LINKS website page views per month      | <120          | 120-170 | >170      | <150          | 170-200 | >200      |  |
|   | LINKS website posts published per month | <2            | 2-3     | >3        | <3            | 3-4     | >4        |  |
|   | Partners website posts published        | <3            | 3-4     | >4        | <5            | 5-6     | >6        |  |
| LINKS and Partners Social Media and Professional Social Media | Total LINKS FB followers                | <220          | 220-270 | >270      | <270          | 270-320 | >320      | Facebook, Twitter, LinkedIn, ResearchGate, Instagram Analytics (monthly) |
|   | LINKS FB reactions per post             | <4            | 4-5     | >5        | <5            | 5-10    | >6        |  |
|   | LINKS FB posts per month                | <2            | 2-3     | >3        | <4            | 4-5     | >5        |  |
|   | Total LINKS TW followers                | <320          | 320-470 | >470      | <470          | 470-600 | >600      |  |
|   | LINKS TW reactions per post             | <6            | 6-10    | >10       | <10           | 10-15   | >15       |  |
|   | LINKS TW posts per month                | <3            | 3-4     | >4        | <5            | 5-6     | >6        |  |
|   | Total LINKS LIn followers               | <220          | 220-270 | >270      | <270          | 270-320 | >320      |  |
|   | LINKS LIn reactions per post            | <6            | 6-10    | >10       | <10           | 10-15   | >15       |  |
|   | LINKS LIn posts per month               | <2            | 2-3     | >3        | <4            | 4-5     | >5        |  |
|   | Total LINKS RG followers                | <22           | 22-27   | >27       | <27           | 27-35   | >35       |  |
|   | Total LINKS Instagram followers         | <50           | 50-100  | <100      | <70           | 70-120  | >150      |  |
|   | LINKS Instagram posts per month         | <1            | 1       | >1        | <2            | 2       | >2        |  |
| Partners posts shared on social media                         | <5                                      | 5-10          | >10     | <10       | 10-15         | >15     |           |  |
| Newsletter  | Total n° of newsletter realised         | <4            | 4-5     | >5        | <5            | 5-6     | >6        | MailChimp dashboard (bi-monthly)   |
|   | Total n° of subscribers                 | <70           | 70-120  | >120      | <120          | 100-170 | >170      |  |
| Press Releases  | Total n° of press releases              | <3            | 3-4     | >4        | <5            | 5-6     | >6        | Publication on the LINKS website (bi-monthly)                            |



| DEC CHANNELS AND EVENTS                                | KPIS   | TARGETS (M30)                                   |  |   | TARGETS (M36)                                   |   |  | MEANS OF MONITORING (FREQUENCY)  |
|--|--|---|--|---|---|---|--|--|
|  |  | Poor  | Good   | Excellent                                       | Poor  | Good  | Excellent  |  |
| Articles in Informative and Sector Magazines and Blogs | Total n° of articles realised<br>Articles per partners   | <25<br><1                                       | 25-35<br>1-2   | >35<br>>2                                       | <35<br><2                                       | 35-40<br>2-3  | >40<br>>3  | DEC - Dissemination, Exploitation and Communication Activity Report (bi-monthly) |
| Events   | Total participations in external (informative and sector) events<br>N° of participants involved (per event)<br>Total participation in scientific conferences<br>Total n° of events organised by the partners<br>Total n° of LINKS Conferences organised<br>N° of participants involved in LINKS Conference<br>Total participations in EC events<br>Total participation in UNDRR events | <12<br><10<br><4<br><1<br><1<br><20<br><4<br><4 | 12-23<br>10-20<br>4-5<br>1-5<br>1-2<br>20-40<br>4-5<br>4-5 | >23<br>>20<br>>5<br>>5<br>>2<br>>40<br>>5<br>>5 | <15<br><15<br><6<br><3<br><2<br><30<br><5<br><5 | 15-25<br>20-25<br>6-7<br>3-10<br>2-3<br>30-50<br>5-6<br>5-6 | >25<br>>25<br>>7<br>>10<br>>3<br>>50<br>>6<br>>6 | DEC Activity Report, Proceedings, list of participants (monthly)                 |
| Online Repositories and LINKS Community Center         | Total n° of online repositories involved<br>Updating of online repositories (monthly)<br>LCC members<br>LCC interactions   | <5<br><1<br><10<br><10                          | 5-6<br>1<br>10-20<br>10-20                                 | >6<br>>1<br>>20<br>>20                          | <6<br><1<br><30<br><30                          | 6-7<br>1<br>30-70<br>30-70                                  | >7<br>>1<br>>70<br>>70                           | DEC Activity Report (monthly)  |
| Infographics   | Total n° of infographics realised  | <4  | 4-5  | >5  | <10   | 10-15   | >15  | DEC Activity Report (monthly)  |

| DEC CHANNELS AND EVENTS         | KPIS  | TARGETS (M30) |        |           | TARGETS (M36) |         |           | MEANS OF MONITORING (FREQUENCY)   |
|---------------------------------|---|---------------|--------|-----------|---------------|---------|-----------|---|
|                                 |   | Poor          | Good   | Excellent | Poor          | Good    | Excellent |   |
| Video                           | Total n° of videos realised (and shared on YouTube) | <3            | 3-4    | >4        | <5            | 5-10    | >10       | YouTube statistics (monthly)  |
|                                 | Total views on YouTube                              | <50           | 50-100 | >100      | <100          | 100-200 | >200      |   |
| Leaflets                        | Total n° of leaflets realised                       | <1            | 1-2    | >2        | <2            | 2-3     | >3        | DEC Activity Report (monthly)   |
| Scientific Publications         | Total n° of scientific papers                       | <2            | 2-3    | >3        | <5            | 5-6     | >6        | DEC Activity Report (monthly)   |
|                                 | Total citations per publication                     | <2            | 2-3    | >3        | <4            | 4-5     | >5        |   |
| Policy recommendations          | Total n° of policy recommendations planned          | <1            | 1-2    | >2        | <2            | 2-3     | >3        | DEC Activity Report (monthly)   |
| Projects and Networks connected | Total n° of related projects connected              | <5            | 5-7    | >7        | <7            | 7-10    | >10       | DEC Activity Report (monthly)   |
|                                 | Total n° of external networks involved              | <5            | 5-6    | >6        | <6            | 6-10    | >10       |   |
| Training and Lectures           | Total n° of lectures                                | <6            | 6-7    | >7        | <7            | 7-10    | >10       | DEC Activity Report (monthly)   |
|                                 | Total n° of students involved                       | <45           | 45-55  | >55       | <50           | 50-60   | >60       |   |
|                                 | Total n° of training sessions                       | <3            | 3-4    | >4        | <10           | 10-20   | >20       |   |
| Interactive workshops           | Total n° of interactive workshops organised         | <3            | 3-5    | >5        | <5            | 5-20    | >20       | Dissemination, Exploitation and Communication Activity Report (monthly) |
|                                 | LINKS Community Workshop organised                  | <2            | 2-3    | >3        | <3            | 3-10    | >10       |   |
|                                 | N° of participants per workshop                     | <10           | 10-20  | >20       | <20           | 20-70   | >70       |   |

## 4.2 Roles of the WP9 Leader and of the Consortium Partners

The WP9 leader is LCU. Its general role is to coordinate the dissemination, exploitation, and communication activities, defining the strategy and the activities to implement to reach the identified target groups, supporting the Consortium partners in the realisation of materials. The LCU team, as WP9 leader, has different resources dealing with three macro-activities: definition of the strategy and relation with the Consortium, realisation of contents (e.g. for social media, newsletter, etc.), and realisation of graphic materials (e.g. videos, infographics, etc.). WP9 leader and the LINKS Project coordinator are always in close connection, to guarantee the dissemination, exploitation and communication strategy will be consistent with the project implementation and results.

The role of the partners in implementing the dissemination, exploitation and communication activities is crucial. In fact, the individual partners, being responsible and owners of the results, play an active role in making the results available to their stakeholders, partners, relevant networks, etc. potentially interested in the project activities. In each organisation a Dissemination, Exploitation and Communication Referent has been identified. His/her role is as interface with WP9 leader and the related organisation in a two-way exchange, by following the general guidelines provided by the WP9 leader and included in the 'Dissemination, Exploitation and Communication Guide' internal document. On the one side, the WP9 leader contact individuals when specific activities are required (e.g.: participation in events of interest, contents to validate, etc.); on the other side, the Dissemination, Exploitation and Communication Referent can contact the WP9 leader (through the emails: [a.opromolla@unilink.it](mailto:a.opromolla@unilink.it) and [linksproject@unilink.it](mailto:linksproject@unilink.it)) if specific tasks have to be done (e.g.: realisation of videos, realisation of infographics, etc.).

The meetings between WP9 leader and the Dissemination, Exploitation and Communication referents represent important moments to define the tasks to carry out, the contribution of each partner, as well as deadlines. Specific meetings starting from M24 will aim at discussing the targets defined for individual communication and dissemination activities on the basis of their institutional communication strategy.

In Table 6, we describe, for each typology of communication channel, the roles of WP9 leader and of the individual partners.

**Table 6: Roles of WP9 Leader and Partners in DEC Activities**

| DEC CHANNELS, MATERIALS, EVENTS                | ROLE OF WP9 LEADER (LCU), LINKS PARTNERS (LP), LINKS COORDINATOR (VU) FOR THE MAIN ACTIVITIES   |
|--|---|
| LINKS Website                                  | 1. Implementing website (new) sections; 2. Suggesting posts (LCU-LP); 3. Scheduling the publication of the posts (LCU); 4. Writing contributions (LCU); 5. Providing feedback on the prepared contents (LP); 6. Publishing contributions (LCU); 7. Promoting the related contents through their channels (LP, that also are responsible of the translation - LCU); 8. Monitoring/Reporting (LCU)  |
| Partners websites                              | 1. Updating of the most appropriate strategy for the individual partner (LCU-LP); 2. Writing and sharing contributions (LP); 3. Promoting the realised contributions (LP, that also are responsible of the translation - LCU); 4. Monitoring/Reporting (LP)<br><i>As per Table 5, each partner must have published 3-4 posts on their website at M30 and 5-6 at M36</i>   |
| LINKS (Professional) Social Media              | 1. Updating the plan of contents to publish (LCU); 2. Suggesting posts (LCU-LP); 3. Writing the contributions (LCU); 4. Validating the contents (LP); 5. Publishing contents (LCU); 6. Promoting the contents and encouraging interaction (LP, that also are responsible of the translation - LCU) 7. Monitoring/Reporting (LCU)  |
| Partners (Professional) Social Media           | 1. Updating of the most appropriate strategy for the individual partner (LCU-LP); 2. Writing and sharing contributions (LP); 3. Promoting the realised contributions (LP, that also are responsible of the translation - LCU); 4. Monitoring/Reporting (LP)<br><i>As per Table 5, each partner must have published 5-10 posts at M30 and 10-15 at M36</i>   |
| Newsletter                                     | 1. Inviting peers, colleagues, and partners to subscribe (LCU-LP); 2. Identifying the topics of the newsletter (LCU-LP-VU); 3. Writing the contributions and supporting visual materials (LCU); 4. Validating the contributions (LP); 5. Sending newsletter to the subscribers (LCU); 6. Promoting the related contents (LP, that also are responsible of the translation - LCU); 7. Monitoring/Reporting (LCU)<br><i>Individual partners can decide to include LINKS in their own newsletter (not mandatory)</i> |
| Press Releases                                 | 1. Indicating appropriate contacts for sending the press release (LCU-LP); 2. Identifying the topics of the press release (LCU-VU); 3. Writing the press release (LCU); 4. Sending the newsletter to the contacts database; 5. Monitoring/Reporting (LCU)<br><i>Individual partners can decide to create apposite press release on their work in LINKS (not mandatory)</i>  |
| Articles in Informative/Sector Magazines/Blogs | 1. Scouting appropriate magazines/blogs (LCU/LP); 2. Giving journalists inputs and draft contents for writing articles on the main LINKS results (LCU) and on specific results (LP); 3. Promoting articles (LCU/LP); 4. Monitoring/Reporting (LCU/LP)<br><i>As per Table 5, each partner must have published 1-2 articles at M30 and 2-3 at M36</i>   |
| Informative and Sector Events                  | 1. Scouting events (LCU-LP); 2. Selecting event and planning the participation (LCU-LP-VU); 3. Preparing materials (LP) and giving support in the preparation (LCU); 4. Participating (LP); 5. Reporting (LCU/LP)<br><i>In addition to external events (organized by third parties, the EC and the UN that follow the reported process), as per Table 5 the number of events directed organized by the partners must be 1-5 in M30 and 3-10 in M36</i>  |

| DEC CHANNELS, MATERIALS, EVENTS | ROLE OF WP9 LEADER (LCU), LINKS PARTNERS (LP), LINKS COORDINATOR (VU) FOR THE MAIN ACTIVITIES  |
|---------------------------------|--|
| LINKS Conferences               | 1. Organising (LCU-VU); 2. Preparing materials (LP); 3. Presenting the results (LP); 4. Promoting and disseminating (LCU/LP); 5. Monitoring/Reporting (LCU/LP)   |
| Online Repositories             | 1. Scouting of appropriate repositories (LCU); 2. Defining/Updating a strategy to share results (LCU); 3. Sharing posts (LCU); 4. Monitoring/Reporting (LCU)   |
| LINKS Community Center          | 1. Promoting the LCC (LCU/LP); 2. Contributing with contents (LP); 3. Monitoring/Reporting (LCU)   |
| Infographics                    | 1. Updating the strategy for implementation (LCU); 2. Providing inputs regarding the topic to develop (LP); 3. Contents creation (LCU); 4. Validating the contents (LP); 5. Graphical realisation (LCU); 6. Promoting (LCU/LP)<br><i>Individual partners will be provided with templates to realise their own visuals/infographics ('LINKS Toolkit'). They will be responsible of contents</i> |
| Videos                          | 1. Defining the strategy for implementation and giving instructions to partners (LCU); 2. Defining the storyboard (LP with the support of LCU); 3. Shooting the video (LP); 4. Editing (LCU); 5. Promoting the videos (LCU-LP); 6. Monitoring/Reporting (LCU)<br><i>Individual partners can decide to realise additional videos not included in the strategy</i>                               |
| Leaflets                        | 1. Providing inputs regarding the elements to include (LC); 2. Writing contents (LCU); 3. Contents validation (LC); 4. Graphical realisation (LCU); 5. Promoting/Using them<br><i>Individual partners will be provided with templates to realise their own leaflets ('LINKS Toolkit'). They will be responsible of contents and translation</i>  |
| Scientific Publications         | 1. Scouting call for papers/journals (LCU/LP); 2. Planning publication (LP); 3. Writing contents (LP); 4. Promoting (LCU/LP); Monitoring (LCU)   |
| Policy recommendations          | 1. Identifying the topics (LCU-LP-LC); 2. Managing the realisation (LCU); 3. Contributing to writing (LCU-LP); 4. Promoting (LCU-LP)   |
| Projects and Networks connected | 1. Scouting of related projects and networks (LCU-LP); 2. Defining joint activities to conduct (LCU-LP); 3. Disseminating the LINKS results (LCU-LP); 4. Monitoring (LCU)  |
| Training/Lectures               | 1. Preparing materials (LP); 2. Presenting (LP); Reporting (LP)  |
| Interactive workshops           | 1. Supporting in the communication activities (LCU); 2. Organising/Conducting workshops (LP); Reporting (LP)<br><i>Individual partners will be provided with templates to realise useful materials for the workshops ('LINKS Toolkit')</i>   |

### 4.3 LINKS Impact Task Force

As described in D9.4, the 'LINKS Impact Task Force' has been established, including EOS, FEU, LCU, SIC, UNIFI, and VU. The general scope is to ensure that the partners work by following a result-based approach which allows that the realised results will reach the identified target groups and can be used by them. The dissemination, exploitation, and communication activities are functional to this purpose since their aim is to contribute to realising the different types of impacts of the project. Considering the specific roles, LCU and VU drive and monitor all the overall process; EOS manages the innovation management aspects; FEU works to identify relevant stakeholders and networks, UNIFI is responsible for the societal impacts of the project, and SIC is responsible for the sustainability of the LCC.

In November 2021, in April-May 2022, and again in March 2023, the individual WP leaders and task leaders were called upon to reflect on the LINKS results within their WP: which results have been (or will be) realised? Going beyond the mere identification of results, partners specified for each result the target groups, the target group's needs and the related key messages to convey to them; the outcomes to realise (change of behaviour in the short-medium term), the scientific, societal, and economic impacts to reach (in the long term, also after the end of the project), the potential exploitation routes, and the means to use in order to evaluate whether the project is reaching the defined outcomes and impacts. This information is present in the 'LINKS Exploitation Canvas'.

### 4.4 Monitoring and Evaluation Procedures

The monitoring regarding the dissemination, exploitation and communication activities is carried out through two main activities:

- a quantitative evaluation: verification of the implemented dissemination, exploitation, and communication activities by consulting the data entered by the LINKS partners into the 'DEC Activity Report'. This allows to monitor whether the LINK partners are reaching the target set for them in Table 5. This action will be carried out every three months (starting from M24) and discussed with the partners during the Steering Committee;
- a qualitative evaluation: verification of the progress in achieving the outcomes (Table 3) and impacts (Table 4), through the application of the means of evaluation of Table 4. In specific moments of the project (at M30, M36, and M42), the LINKS partners are called to provide the results of the evaluation during ad hoc meetings organised with the 'LINKS Impact Task Force', by providing evidences regarding the achievement of the identified outcomes/impacts. From the discussion, the future actions to implement will be provided and summarised in a document that, in case, also identifies the contingency measures. LCU and VU will drive the process, reminding the activities to perform, providing the outputs to realise for the evaluation, and providing the final report with the future activities to implement.

## 5. COMMUNICATION ACTIVITIES

The objective of the communication activities is taking strategic and targeted measures for promoting the project and its results to a multitude of audiences, including the media and the public.<sup>5</sup> In LINKS it started at M1. In this section, the updated strategy regarding channels, materials, and events to adequately communicate the LINKS project is described.

### 5.1 Channels

Communication channels include LINKS and partners websites, LINKS and partners social media, newsletter, and press release. In Table 7, the description of the use of all the communication channels in the project is presented.

**Table 7: Communication Channels Use in LINKS**

| CHANNEL                         | MAIN GOALS  | ACTIVITIES  |
|---------------------------------|---|---|
| LINKS and Partners Websites     | Creating awareness about LINKS-related topics in all the target groups; increasing technical and scientific knowledge regarding the projects; providing access to the LINKS results and tools | Sharing the LINKS results in different formats (e.g. deliverables, visuals, etc.) with appropriate networks; publication of news, events, publications, activities and methodology, networks collaboration; integrating the LINKS website within all the other channels and materials |
| LINKS and Partners Social Media | Creating awareness about the LINKS topics; increasing visibility of the elements published in the website; creating connection with other communities   | Sharing the LINKS results and project activities customised on the basis of the target groups; sharing news and events, posts on LINKS related topics; sharing engaging posts so that followers and related pages/groups can provide feedback and contributions                       |
| News-letter and Press releases  | Informing professionals and media about LINKS activities and results in key moments   | Realising short and targeted contributions aimed at identifying the benefits of LINKS (and specific results) for the stakeholders and diffusing them to the appropriate target groups   |

#### 5.1.1 LINKS and Partners' Websites

The LINKS website<sup>6</sup> is the primary portal for LINKS, since it allows to be connected in a two-way exchange with the other platforms (e.g. the LINKS social media channels, the partners websites, the LINKS Community Center) and to download key materials (e.g.: infographics, publications,

<sup>5</sup> Ala Mutka K. (2020). Dissemination and Exploitation in Horizon 2020. Retrieved December 16, 2020 from: [https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8\\_result-dissemination-exploitation.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8_result-dissemination-exploitation.pdf)

<sup>6</sup> LINKS Website: <http://links-project.eu/>

deliverables, etc.), containing all the results produced during the project and the description of key activities within the project. It is organised in a systematic manner; moreover, in M25 an expansion has allowed to access the results in a more user-friendly manner (creating a separate subsection on the LINKS website called 'LINKS Results', where all the results will be made accessible and grouped per LINKS target groups). Even if LCU is the responsible for the implementation of the contents for the LINKS website, deciding the contents to publish and when, all the partners continue to give inputs for publication (for example, when they participate in key events and provide key results in the project ask LCU to publish a related news) and to validate the contents before the publication. Partners who do not actively suggest contents, will be directly invited by LCU to do that, scheduling it appropriately. A quarterly plan which ensures the publication of 2-3 posts per month is realised and updated, by ensuring a continuous presence.

LINKS partners are also requested to give visibility to their results and activities in the project, making them available to their contacts, by publishing news, deliverables, and key events on their institutional websites. To make the communication strategy of the individual partners coherent with the LINKS project communication strategy (and with their institutional communication strategy), bilateral meetings between the DEC Referent and LCU will be realised. A one-page practical guide for publishing on the partners websites, containing the basic contents to share (project description, reference to the macro activity within the project, individual contribution to LINKS, links and contacts) and the targets at M30 and 36 (on this, see Table 5) has been developed. One requirement to the partners is the translation of contents related to LINKS in their languages. The monitoring will occur once every 3 months.

### 5.1.2 LINKS and Partners' Social Media

The use of LINKS social media for communication and dissemination purposes is crucial for this project, considering its specific topic. LINKS is using many different social media channels, in order to reach the different target groups. Both general social media (Facebook and Twitter) and professional ones (LinkedIn, ResearchGate, Academia) are used. At the already existing social media channels, a dedicated page on Instagram will be added in the next months, considering the need (already mentioned above) to share more visual-based contents, and also addressed to specific targets (in this case the objective is to ensure that the LINKS results reach young people). In this section, we are going to describe the use of general social media, while the use of professional social media in LINKS will be described in the next session, that focuses more on dissemination activities.

In Table 8 the approach for Facebook and Twitter for the individual target groups is described. Specific indications on the number of actions that will be carried out are present in Table 5.

**Table 8: Social Media Goals and Activities**

| SOCIAL MEDIA | TARGET GROUPS | GOALS | ACTIONS |
|--------------|---------------|-------|---------|
|--------------|---------------|-------|---------|



|                       |  |  |   |
|-----------------------|--|--|---|
| Facebook <sup>7</sup> | Practitioners                          | Inform them of benefits of the LINKS results for their work; involving them in the project activities (e.g. LINKS cases); understanding needs  | Giving practical examples on possible improvement of the practitioners work through the LINKS solutions, sharing testimonies, stories, actionable & visual materials; publishing surveys and inviting to provide contributions; inviting stakeholders to join                                       |
|                       | Civil Society/<br>Local<br>Communities | Inform them of LINKS activities and benefits for their life; disseminating LINKS topics and key definitions; involving them in project activities (e.g. LINKS cases); understanding needs        | Inviting local communities and citizens (usually affected by disasters) to join Facebook; demonstrating the importance to deal with disasters; inviting to provide experiences; providing practical examples of LINKS results' benefits   |
| Twitter <sup>8</sup>  | Practitioners                          | Let them know about LINKS objectives and the benefits of the results for their work; involving them in the project activities (e.g. LINKS cases); understanding needs                            | Giving practical examples on possible improvement of the practitioners work through the LINKS solutions, sharing testimonies, stories, actionable materials; publishing surveys and inviting to provide contributions; inviting stakeholders to join  |
|                       | Policy Makers                          | Let them know about benefits of the tools adopted in LINKS and on results from LINKS cases; making them aware of the policies; involving in project activities; understanding needs              | Sharing posts on how the LINKS solutions can be integrated within public policies, and examples of application in local contexts; sharing the contribution LINKS can give to define new policy recommendations (and the process to define this)   |
|                       | Civil Society/<br>Local<br>Communities | Let them know about LINKS activities and benefits for their life; educating about LINKS topics and key definitions; involving them in project activities (e.g. LINKS cases); understanding needs | Inviting local communities usually affected by disasters) to join Twitter; raising people's awareness about their role and contributions in disasters; demonstrating the importance to deal with disasters; inviting to provide experiences; providing practical examples of LINKS results benefits |
|                       | Businesses                             | Let them know about LINKS results and potentials for the market  | Giving practical examples regarding the needs of the other stakeholders and how technologies can meet them; inviting to join  |

<sup>7</sup> LINKS Facebook Page: <https://www.facebook.com/LINKSEUProject>

<sup>8</sup> LINKS Twitter Page: [https://twitter.com/LINKS\\_EUProject](https://twitter.com/LINKS_EUProject)

|           |  |  |  |
|-----------|--|--|--|
|           | Developers                             | Making available scientific results and methods of the project; creating an interactive dialogue on the LINKS topics | Posting key abstracts from scientific publications realised by the Consortium and events/meetings of interest; inviting key stakeholders/people to join and to provide feedback on the shared contents |
|           | Disseminators                          | Sharing information about LINKS progress and results to spread these contents  | Sharing the realised newsletter and press release from which they can create new articles and contributions; demonstrating the role of media in disasters  |
| Instagram | Civil Society/<br>Local<br>Communities | Sharing LINKS results with young people  | Sharing visual contents (e.g. infographics and other visuals) that make the LINKS results more accessible  |

In the social media strategy implementation, a social media plan will be developed and monthly updated. It indicates: day of publication, category (e.g. 'deliverable', 'news', 'event', 'LINKS definition', 'publications', 'networks', etc.), topic, post, supporting visual, relevant partners. The last element is important since it created a connection with the LINKS partners: as per Table 6, they can suggest posts to share (as for the LINKS website), but in addition, they are the ones to validate the contents realised by LCU. In the next months, we expect that the engagement of LINKS partners in LINKS social media will increase, due to realisation of valuable LINKS results. To do that, bilateral meetings among LCU and the individual partners are organised with the aim to concretely identify for the different results how better communicate the related messages to the target groups.

In general terms, for the publication, the instructions provided in Table 17 of D9.1 (regarding the basic information to include in the post with the suggesting hashtags to use) continue to be valid. Moreover, the main difference between Facebook and Twitter is that Facebook allows to access to a wider target of non-professionals, while Twitter allows to give visibility mainly to experts or people with pre-existing interest. For this reason, to more engage the followers, we will adapt the language accordingly, making the posts shared through Facebook more accessible (by using a common language and user-friendly visual materials), and the ones shared through Twitter more technical and scientific (connected with policies and knowledge they already are familiar with). Both on Facebook and on Twitter mentioning partners, relevant projects (e.g. the ones of DRS-01 Cluster and PREPARE Cluster), specific pages and stakeholders (e.g. the ones deriving from the work of the stakeholder mapping conducted by FEU under WP7) is important to increase visibility of the project. With the aim to more engage the followers, some more action-related posts will be shared (e.g. inviting followers to share their contributions, feedback, opinions, and answers), as well as strengthening the connection with the other LINKS channels and external platforms. Targets of M30 and 36 in terms of followers, post per months, etc. are indicated in Table 5.

Also the institutional social media pages of the LINKS partners (as well as the individuals working on the project) continue to represent an important channel for LINKS communication activities. To

continue to do this, the 'Update of DEC Manual for LINKS partners' will be provided, containing the basic typology of contents to share and the targets at M30 and 36 (on this, see Table 5). One requirement to the partners is the translation of social media posts about LINKS in their local languages. The monitoring will occur once every 3 months.

### 5.1.3 Newsletter and Press Releases

Newsletter and press releases represent tools to communicate with interested stakeholders (who subscribed to the newsletter) and media (through the press release). The general objective is to reach them with information regarding LINKS and the related results even if they do not directly access to the main LINKS channels (website and social media). This occurs in specific key moments, approximately every six months (M25, 30, 36 and 42). Newsletter and press releases are connected since the articles realised for the newsletter (at least 4-5 articles, are planned in close collaboration with all WP leaders, according to the roles and processes described in Table 6=). As such, they also represent basic contents for the press releases (representing the key aspects to focus on at that moment of the project).

The contents of the newsletter and press releases are result-based and include an update of key results generated in the project (e.g.: the realisation of the LINKS Community Center, the creation of the LINKS Community, the results from the LINKS Community Workshops, etc.). They are also target-oriented, aimed at identifying the benefits of the results for target groups. The use of visuals that summarise the key contents are used to better explain the discussed contents. Both the newsletter and the press releases have a prominent place also in the LINKS website, with the publication in the appropriate section<sup>9</sup>, and on the LINKS social media. In particular, the articles of the newsletter are published as articles of the blog in the LINKS website and the related links are shared also through the social media pages.

Now we have a database with about 100 contacts (who voluntarily subscribed) for the newsletter and 150 contacts of journalists to whom the press releases will be sent. To increase the number of subscribers to the newsletter periodically we share on the LINKS and Partners social media channels posts inviting new contacts to join (and also through a direct invitation via e-mail); then, we foresee that with the increase of participation of LINKS in the different type of events, the network will increase too (and as a consequence also the number of people interested in subscribing the newsletter). The journalists' databases are continuously updated, thanks to the work of scouting of LCU and the contribution of the LINKS partners who invite and involve their contacts and networks.

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<sup>9</sup> LINKS Newsletter and Press Releases: <http://links-project.eu/newsletter/>

## 5.2 Materials

Communication materials include leaflets, and articles in informative magazines. In Table 9, the description of the use of all these materials within the project is presented.

**Table 9: Communication Materials Use in LINKS**

| MATERIAL                          | MAIN GOALS   | ACTIVITIES  |
|-----------------------------------|--|---|
| Leaflets                          | Communicating to a wider audience (as well as to a scientific and technical one) the main results of the project | Creating accessible contents and visuals to communicate the key results; distributing them during events and in networking              |
| Articles in Informative Magazines | Making available to a broader audience the main results and activities of the project                            | Creating accessible contents that describe the overall project and that demonstrate the application of the results in specific contexts |

### 5.2.1 Leaflets

As already stated in D9.1 (section 4.2.2), the second LINKS leaflet will be delivered at M36. It will focus on the main two results of LINKS: the LINKS Framework, and the LINKS Community Center. LCU is responsible of its realisation (in terms of contents and visuals), after input from partners (WP5 and 6 leader). Leaflets will particularly be used by partners in their participation in different events (as well as published online). In addition to this, LCU is working on the realisation of a kit of visual elements and templates that the other partners can use to realise additional leaflets, for specific communication purposes (especially during LINKS Community Workshops).

### 5.2.2 Articles in Informative Magazines and Blogs

Articles in informative magazines and blogs represent an opportunity to communicate the project activities and results not only to a specialised audience but to a broader one (including the feedbackers). The publication of articles in informative magazines will be made possible not only by directly sending different starting materials to journalists LINKS partners have direct contact with, but also by sending press releases to specific news media (giving the possibility to specific journalists to write articles on LINKS based on these contents). The peculiarity of this typology of article is characterised by the accessible language, the focus on basic key aspects of the project and by focusing on how the results can improve people's lives in a specific area. For this reason, informative magazines and blogs particularly include magazines connected to local communities, especially oriented to the LINKS Community Workshops and local cases. A good example of this approach is the publication in local magazines (e.g. TerniLife.com, VivereUmbria.it, NewTuscia.it, etc.) on the engagement of PDT within LINKS in different phases with a particular focus on the benefits of the project for the community. With this objective, the local cases coordinators have been invited to provide contacts and references of local magazines we are getting in touch with. We plan to increase the number of publications of these articles in M36 and 42.

## 5.3 Events

Communication events include informative events addressed to a wider audience. In Table 10, the description of the main goals of the participation to these events and the activities to carry out are indicated.

**Table 10: Informative Events in LINKS**

| EVENT              | MAIN GOALS  | ACTIVITIES  |
|--------------------|---|---|
| Informative Events | Making available to a broader audience the main results and activities of the project | Organizing local-based events, involving specific associations/schools to participate; developing a clear strategy of participation in case of events organized by third parties; preparation of materials (e.g. presentations, communication materials, demonstrator, etc.), sharing the results through the LINKS/Partners website and social media |

### 5.3.1 Informative Events

Informative events represent an opportunity to communicate the project activities and results not only to a specialised audience but to a broader one (including the feedbackers). This represents an important activity for the project, considering the strong impact at the societal level it intends to reach. The aim of these events is to make people aware of the importance for all the civil society to deal with disasters and the central role people can play. Results and activities under WP2 (regarding the risk perception and vulnerability), as well as the events associated to the LINKS Community Workshops and local cases fall into this category. Local cases organisations will play a central role to reach this objective, since they have the appropriate contacts. Examples of these events are: meetings with schools, with local associations, with citizens committees, etc. We plan to increase the number of publications of these articles in M36 and 42.

#### Key Takeaways from this Section

- LINKS Communication activities aim to reach a multitude of audiences, by informing about the project's activities in a tailored way.
- The LINKS website will be structured in an even more user-friendly manner, to make the results better accessible. A stronger collaboration with the LINKS partners allows to update it with valuable contents on a monthly basis.
- LINKS-related contents will be more and more used in the partners' institutional websites and social media channels, preferably in local languages.
- The LINKS Facebook and Twitter pages will aim at increasing engagement even more, through interactive posts with relevant stakeholders, and even more pro-actively strengthening the mentions and tags.

- Newsletter and Press Releases (released at M25, 30, 36 and 42) are more LINKS results-based. The outreach of relevant stakeholders will be increased inviting people, especially sending invitations through the LINKS and partners channels and e-mail, sharing posts through the online repositories, inviting new contacts obtained during events participation.
- A new LINKS leaflet, which will focus specifically on the LINKS Framework and LINKS Community Center, will be realised at M36 and distributed during informative and specialised events.
- Articles in informative magazines, as well as the participation in informative events (foreseen at M36 and 42), aim at creating awareness regarding disasters in non-academic realms, notably within civil society.

## 6. DISSEMINATION ACTIVITIES

Dissemination refers to the public disclosure of LINKS' results by any appropriate means, including by scientific publications in any medium.<sup>10</sup> In LINKS it started at M5. In this section, the updated strategy regarding channels, materials, and events to adequately disseminate the LINKS results is described.

### 6.1 Channels

Dissemination channels include professional social media channels (LinkedIn, ResearchGate, and Academia), online repositories, and the LINKS Community Center. Table 11 presents the use of dissemination channels in the project.

**Table 11: Dissemination Channels in LINKS**

| CHANNEL                            | MAIN GOALS   | ACTIVITIES   |
|------------------------------------|--|--|
| Professional Social Media Channels | Creating awareness on the LINKS topics; making the professional target groups aware of the results; creating connection with external communities              | Sharing the project results and materials; sharing posts on LINKS-related topics; engaging community through comments, tags, and feedback; interacting with other pages and groups |
| Online repositories                | Giving professionals the possibility to access LINKS results through well-known platforms, such as CMINE, CORDIS, DRMKC  | Publication of materials connected to the results (e.g. deliverables, infographics, etc.), customised to the involved target groups  |
| LINKS Community Center             | Giving professionals the possibility to access LINKS results (as well as other relevant projects results); enabling direct interaction among key target groups | Publication of key elements of the project and managing the interaction among the target groups  |

#### 6.1.1 Professional Social Media Channels

Professional social media channels represent the platforms where the professional target groups (practitioners, policy and decision makers, businesses, and developers) are present. In LINKS, LinkedIn, ResearchGate, and Academia are used. In Table 12 describes implementation through these channels.

**Table 12: Social Media Goals and Actions for LinkedIn, ResearchGate and Academia**

<sup>10</sup> Ala Mutka K. (2020). Dissemination and Exploitation in Horizon 2020. Retrieved December 16, 2020 from: [https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8\\_result-dissemination-exploitation.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8_result-dissemination-exploitation.pdf)

| PROFESS. SOCIAL MEDIA  | TARGET GROUP                           | GOALS  | ACTIONS  |
|--|--|--|--|
| LinkedIn <sup>11</sup>   | Practitioners                          | Providing information regarding the benefits of the LINKS results in their work and how they could be integrated within their activities; involving them in project activities (e.g. LINKS cases); creating contacts with the other stakeholders | Giving practical examples on possible improvement of the practitioners work through LINKS solutions, through testimonies, stories, actionable materials  |
|  | Policy Makers                          | Let them know about benefits of the tools adopted in LINKS and on results from LINKS cases and their coherence with existing policies; involving in project activities; creating contacts with the other stakeholders                            | Sharing posts on how the LINKS solutions can be integrated within public policies, and examples of application in local contexts; sharing the contribution LINKS can give to define new policy recommendations |
|  | Businesses                             | Let them know about LINKS results and potentials of the market   | Giving practical examples regarding the needs of the other stakeholders and how technologies can meet them   |
|  | ResearchGate <sup>12</sup><br>Academia | Developers   | Making available scientific results and methods of the project; creating an interactive dialogue on the LINKS topics   |
| Posting all scientific publications realised by the Consortium and events/meetings of interest |  |  |  |

LinkedIn is addressed to different types of experts and the shared posts are action-based; a direct involvement of specific stakeholders (e.g. mentioning them) will be created. ResearchGate and Academia are addressed to researchers and for this reason the contributions will especially consist in the realised scientific papers. For LinkedIn, a monthly updated plan is used; for ResearchGate and Academia no specific plans are used, since posts are created only when a scientific contribution has been realised. Targets of M30 and 36 are present in Table 5; the organisation at the basis of contents writing and sharing is described in Table 6.

<sup>11</sup> LinkedIn Page: <https://www.linkedin.com/company/links-eu-project/?viewAsMember=true>

<sup>12</sup> LINKS ResearchGate page: <https://www.researchgate.net/project/LINKS-Strengthening-links-between-technologies-and-society-for-European-disaster-resilience>



### 6.1.2 Online Repositories and LINKS Community Center

Online platforms show materials presenting the LINKS results available to different communities, in particular practitioners, policy makers, and researchers interested in crisis management, such as: CMINE - Crisis Management Innovation Network<sup>38</sup>, CORDIS - COmmunity Research and Development Information Service<sup>39</sup>, DRMKC - Disaster Risk Management Knowledge Centre<sup>40</sup>, and Zenodo<sup>41</sup>. They are used to share news, information on LINKS events, and materials (e.g.: deliverables, publications, visuals, etc.). These contents are elaborated based on the ones shared through the LINKS website and social media and will be monthly updated by LCU. In the next months a better integration of these platforms with the other LINKS channels (especially social media, website, etc.) will be done, by creating links to the reciprocal resources. Moreover, a scouting of additional platforms, addressed not only to practitioners and policy makers but also businesses, will be carried out.

LCC - LINKS Community Center<sup>13</sup> is one of the main results of the project, since it will allow to create relations among the different target groups. Considering the central role that the LINKS Community Center will acquire, the promotion of this platform will be fundamental in the next months (not only giving a prominent visibility in the LINKS website, but also through the other platforms and repositories). In fact, in terms of dissemination activities, from M24 LCU has shared specific messages through the website and the social media that convey the importance of the LCC as the main repository where results are made available to the users in different formats. The role of SIC, as WP7 leader, as well as of the other WP leaders contributing to the development of knowledge and materials within the LCC, will be fundamental; they not only will disseminate it in their networks, by emphasizing their contribution, but will also actively contribute to the interactions and relations that will be created.

## 6.2 Materials

Dissemination materials include infographics, videos, articles in specialised magazines, scientific publications, and policy recommendations. Table 13 describes the use of the dissemination materials in the project.

**Table 13: Dissemination Materials in LINKS**

| MATERIAL     | MAIN GOALS   | ACTIVITIES  |
|--------------|--|---|
| Infographics | Disseminating key results/terms of the project in a clear and accessible way, according to the diverse needs and characteristics of stakeholders | Realisation of visuals that summarize key terms/results of the project in a captivating way, by emphasizing how and why that result is useful for a specific target group |

<sup>13</sup> LCC: <https://links.communitycenter.eu/>

| MATERIAL                          | MAIN GOALS   | ACTIVITIES   |
|-----------------------------------|--|--|
| Videos                            | Disseminating key results of the project and their practical application in a clear and accessible way | Realization of short videos-interviews that summarize key results of the project, by emphasizing the general characteristics of the results and their use by specific stakeholders |
| Articles in Specialised Magazines | Making available to a specialised audience the main results and activities of the project              | Realization of articles targeted (in terms of covered topics and language) on the basis of the magazine audiences  |
| Scientific Publications           | Providing LINKS methodologies and scientific results to a scientific and multidisciplinary audience    | Writing papers and disseminating them through research networks, repositories, journals, and conferences   |
| Policies Recommendations          | Giving policy makers indications on how to implement specific actions based on the project results     | Definition of policy recommendations (by engaging stakeholders, collecting support data, describing the solution and its benefits), publishing them with the appropriate targets   |

### 6.2.1 Infographics and Videos

Infographics and videos are part of the visual strategy of LINKS, which seeks to disseminate results by using visual materials and in doing so making the main aspects of the results more accessible. This strategy includes, among others, the use of visuals in the LINKS deliverables. To facilitate the realisation of infographics (both from LCU as leader of dissemination and from the other LINKS partners), the 'LINKS Toolkit', a kit containing basic visual materials customised around the main topics of the project and according to its visual identity, will be realised and made available to the LINKS partners to better communicate independently their messages.

Infographics, intended as elaborated visuals (realised with the 'Exploitation Canvas' developed by WPLs) which summarise key results of the project (starting from contents present in the deliverables, in the policy recommendations, in the scientific publications, etc.) will be more and more used in the next months of the project. Diverse infographics for the different target groups (by emphasizing the importance of a specific LINKS result for the single target groups) are realised. Even if they will be customised on the basis of the specific result and target, the infographics follow the same structure (for whom the result is interesting, why is it important, in which consists of the solution, a practical application, links and resources to learn more about) and use the same language (very concise sentences, use of icons and colours, etc.). Some topics of the infographics are: social vulnerability paradigm, risk perception, ethics, accessibility, children in disaster management processes, drivers for institutional resilience, methods for the case assessment, the Disaster Community Technology schema, LINKS Community, components of LINKS Framework, LINKS cases, etc.

Also videos will be created in the next months of the project. A strong collaboration among LCU (as WP9 leader) and the WP/Task leader will be crucial and follows the process described in Table 6. In particular, the 'LINKS Stories', based on practical application of the LINKS results for the diverse target groups consisting in short speeches involving more than one partner, have already been realised. An animated video, based on more general topics will be realised. The videos will be published on YouTube. Some videos focused on the 5 LINKS Cases will be realised in the next months: Dutch case (involving VU, ST, and VRZL), Danish case (involving UCPH, UCC, FRB, and HBR), Italian case (involving UNIFI, SCIT and PDT), German cases (involving SIC, DHPOL).

### 6.2.2 Articles in Specialised Magazines

Articles in specialised magazines represent an opportunity to disseminate the project activities and results to a specialised audience (practitioners, policy makers, businesses, and researchers). The publication of articles in specialised magazines will be made possible by sending communication materials, the realised press releases, and the results from the local cases/LINKS Community Workshops to the news media already identified, by emphasising on the practical implication of the LINKS results in the work of experts/specialists. A direct contact with LCU allows to identify the specific type of contribution to realise (in which also the input and specific contributions from partners is crucial). In fact, specialised magazines include both magazines on the general topic of disasters (e.g. Emergenza2.0, Crisis Response Journal, PreventionWeb.net), both the ones more oriented to specific target groups (e.g.: SistemaProtezioneCivile.it, Firefighter Magazine to disseminate the results to practitioners; GeoSmartMagazine.it and Energy-Up.it to disseminate the results to businesses; Cordis.Europa.eu and Horizon Result Magazine to disseminate the results to policy makers), and for this reason a targeted strategy for each contribution is needed. Due to the centrality of specialised magazines for the user-centered approach LINKS is following, we plan to continue publishing them during the entire duration of the project.

### 6.2.3 Scientific Publications

Scientific publications represent the main material to disseminate the project results to the researchers. This allows to make the LINKS results known to the scientific community, enable exchanges, and realise new knowledge. The aim of the future scientific publications on the LINKS results will be addressed to a multidisciplinary community of researchers working in the following fields: communication studies in general, media education, strategic communication, risk and crisis communication, environmental communication, policing, threat management and security communication. Papers in scientific journals, in conference proceedings, and books will be realised following the requirements of the European Commission regarding the open access rules. The scientific publications will be made available also through the LINKS website, the online repositories (e.g. Zenodo, SemanticScholar, ResearchGate, etc.) and diffused through the LINKS social media and all the channels of the individual project partners. In the upcoming months, with the increases of the stabilisation of results, the number of publications will increase as well, along with the citations

and use of the results. Targeted journals for the LINKS results dissemination are planned: 'Geotema', 'Sustainability', 'J-readings', 'Ambiente, Società e Territorio' (e.g. for the dissemination of WP2 results), 'New Media and Society', 'Nature Communications', 'International Journal of Disaster Risk Science', 'Disaster prevention and management', 'Disasters' (e.g. for the dissemination of WP3 results), 'International Journal of Disaster Risk Reduction', 'Journal of Contingencies and Crisis Management', 'Journal of Flood Risk Management' (for the dissemination of WP5-6 results on the LINKS Framework and the results from the cases assessment), etc. The number of publications will particularly increase after M30, after the analysis of the first case assessment.

#### 6.2.4 Policies Recommendations

Policy recommendations are targeting policy makers. Their aim is to give policy makers indications on how to implement specific guidelines, strategies and actions, based on the LINKS findings. The general approach for policy recommendations is defined in D9.4 (section 4.2.2), where the emphasis on the stakeholders' engagement (collecting data from workshops and roundtables with policy makers) is crucial. Policy recommendations especially provide indications regarding the specific topics of LINKS (application of social media and crowdsourcing in disaster management processes) and for this reason they will be released in the last phase (last 4-5 months of the project). However, before this period, the LINKS Consortium has been collecting data and is engaged in specific preparatory activities oriented to collecting data for the elaboration of the policy recommendations (e.g. activities planned with the DRS-01 Cluster and relevant European Commission Directorates, such as the CERIS – Community of European Research and Innovation for Security 'Disaster Risk Society' event, which took place in March 2022).

### 6.3 Events

Dissemination events include specialised events, scientific conferences, existing network events, trainings, and interactive workshops. In Table 14, the description of the main goals of the participation to these events and the activities to carry out is presented.

**Table 14: Dissemination Events in LINKS**

| MATERIAL                           | MAIN GOALS  | ACTIVITIES   |
|------------------------------------|---|--|
| Specialised Events and Exhibitions | Making available to a professional audience the main results and activities of the project and getting in touch | Preparing, showing, and discussing presentations and additional materials (e.g.: demonstrator, communication materials, etc.) on the LINKS results                           |
| Scientific Conferences             | Making available to the academic audience the main results of the project and getting in touch                  | Preparing, showing, and discussing presentations on scientific contents of LINKS and engaging the interested researchers to involve them in future activities of the project |

| MATERIAL                 | MAIN GOALS   | ACTIVITIES   |
|--------------------------|--|--|
| Existing Networks Events | Disseminating the main LINKS results to relevant networks and related projects | Organising regular meetings to learn about results and events involving external experts and researchers, creating working groups on cross-cutting topics, publishing LINKS results on their platforms |
| Trainings and Lectures   | Training students, researchers, and users on how to use the LINKS results      | Disseminating with students and researchers of the academic partners of LINKS, with the practitioners and local communities directly involved in the project (creating ad hoc supporting materials)    |
| Interactive Workshops    | Actively engaging people on the LINKS results                                  | Involving the participants in giving feedback starting from LINKS results and methods, to improve them or in creating new solutions starting from them   |

### 6.3.1 Specialised Events and Exhibitions

Specialised events consist of events involving experts and insiders on the topics of crisis management, social media and crowdsourcing, accessibility, disaster technologies, etc. They include various typology of events; LINKS has already taken part in some of these in 2020 and 2021, and intends to take part in others in 2022 and in 2023. The participation in these events continue during the entire duration of the project. Specialised events for LINKS are summarised as follows:

- events organised by the individual LINKS partners (specific to the LINKS project or not). An example is represented by the 'Safety Camp' event, currently being planned by SIC and DGSMTech - German Society for the promotion of social media and technology in Civil Protection. In this same category also the 2nd LINKS Conference is included (which will take place at M29-30); it will be focused on the main results of the second year of project (in particular on LINKS Framework);
- events organised by the UNDRR – United Nation for Disaster Risk Reduction, such as the European Forum for Disaster Risk Reduction 2022 and 2023 (e.g. to test the educational toolkit and Disaster Risk Perception and Vulnerability tool), the 'UNDRR Global Platform 2022', etc.
- events organised by the European Commission, such as the events and workshops organised at the European level by CERIS ('Disaster Resilience Cluster Conference') and by JRC – Joint Research Center (in particular focused on how to translate the scientific results into policy recommendations);
- events organised by third parties working in the field of disasters, crisis management, crisis communication, such as: 'European Geosciences Union General Assembly 2022', 'Accessibility Days 2022', 'European Emergency Number Association Conference 2022', 'Settimana Nazionale della Protezione Civile' (to disseminate results related to WP2); 'Hungarian Red Cross conference', 'COPE Socials' (to disseminate results related to WP3); DRMKC annual seminar (to disseminate WP5-6 results); 'European Emergency Number Association Conference 2022 (to disseminate results related to WP4); 'vfdb-

Jahresfachtagung', 'Virtual Fires Congress', 'Digitale Modellregion OWL', 'Safety Days' (to disseminate WP7 results); INTERSCHUTZ 2022 (to disseminate results related to WP8).

The role of the LINKS partners is crucial in the dissemination of the results, due to their ownership of the results and their knowledge of the most relevant occasions and networks where to disseminate them. The planned participation, as well as the obtained results will be shared through the other channels (such as the LINKS/partners website/social media).

### 6.3.2 Scientific Conferences

Scientific conferences represent a valuable occasion to disseminate the LINKS project results to a scientific and international audience. This is particularly important in this phase of the project considering that many of the scientific results have been achieved or are in the process of being realized. Among the most appropriate scientific conferences we intend to participate to: 'Royal Geographical Society-IBG Annual International Conference', 'NEEDS - Northern European Conference on Emergency and Disaster Studies 2022', 'AIGG - Associazione Italiana Insegnanti di Geografia Conference 2022', 'The Earth System Governance Conference', 'ISCRAM – International Association for Information Systems for Crisis Response and Management 2022', International Conference on Information Technology in Disaster Risk Reduction 2022'. The participation in scientific conferences continue during the entire duration of the project.

### 6.3.3 Existing Networks Events

LINKS became part of some important networks working on topics similar to LINKS (e.g. DRS Disaster Resilience Societies - 01 Cluster, PREPARE Cluster, COPE - Copenhagen Center for Disaster Research, DRMKC – Disaster Risk Management Knowledge Center). LINKS takes part in this network since in this way the project can disseminate the results to a wider audience and to optimize the work thanks to a joint effort. A clear description of specific mission of each network is presented in D9.4, section 4.3.1. In the next future, we continue to disseminate the LINKS results through these networks in different ways, e.g. organising regular meetings to learn about results and events involving external experts and researchers, creating working groups on cross-cutting topics (e.g. vulnerability) that aim at creating policy recommendations in the last period of the project, publishing LINKS results on their platforms, participating in external events to specific audiences (especially the events organised by CERIS to disseminate to policy makers, the EENA – European Emergency Number Association and UNDRR events to disseminate results to policy makers, etc.). The specific opportunities of collaboration are evaluated during regular meetings organised on a monthly base.

Additional network collaborations are under evaluation, such as: EUGEO – Association of Geographical Societies in Europe, 'Associazione Italiana Insegnanti di Geografia' (for the dissemination of WP2 results), Global Disaster Preparedness Center, vfdb - German Fire Protection Association, VdF – Italian Fire Protection Association, AGBF - Arbeitsgemeinschaft der Leiter der Berufsfeuerwehren in der Bundesrepublik Deutschland, BBK - Federal Office of Civil Protection and

Disaster Assistance, DKKV - Deutsches Komitee Katastrophenvorsorge eV, DSTGB - Deutsche Städte- und Gemeindebund, CEDIM - Center for Disaster Management and Risk Reduction Technology, Institute of Rescue Engineering and Hazard Prevention TH Köln, DGSMTech - Deutschen Gesellschaft zur Förderung von Social Media und Technologie im Bevölkerungsschutz, VdF-NRW (for the dissemination of WP4 and WP7 results). A complete mapping of networks has been carried out by FEU under WP7 activities.

#### 6.3.4 Lectures and Trainings

Lectures and trainings are oriented to the dissemination of results to researchers and students (through lectures) and to the users (through training activities), to respectively disseminate the scientific results with the academic community and the ones with a concrete societal impact to practitioners and local communities.

On the one side, the presence of scientific partners in the Consortium allows to get in touch with Bachelor's, Master's and PhD students and researchers interested to the LINKS topics and/or working in the same field (involving the UNIFI students to disseminate the results on vulnerable groups in disasters, UCPH students and researchers to disseminate results on disaster management processes, VU students to disseminate the results related to the LINKS Framework, DHPOL/LCU on crisis communication through the social media). The collaboration with other universities (e.g. Lund University) also allows to disseminate in external contexts. The dissemination takes place during the academic year lessons (depending on the specific calendars) and diverse teaching methods are used (frontal lessons, workshops, seminars).

On the other side, training activities allow future users of the project learn how to use the results (starting from the practitioners and local communities involved as partners of the project and to the additional stakeholders mapped by FEU under WP7). Training sessions with this objective are oriented to demonstrate (through presentations, visuals, sharing demonstrators) how using two main LINKS results: LINKS Framework and LINKS Community Center. This will happen especially in the last part of the project (notably from M36).

#### 6.3.5 Interactive Workshops

Workshops represent one of the most important opportunities to make project results available, as they can be used to establish a constructive dialogue with the target groups. The objectives are diverse (collecting needs, validating results, finding new solution based on LINKS results, monitoring the etc.), as are the typology of workshops. The strategy for the implementation of LCW-LINKS Community Workshops is presented in D8.2 'Updated LINKS Community Strategy 1'. However, additional interactive workshops (to realise during third party events, or expressly organised by the LINKS partners) are planned. As per Table 5, before the end of M30, 3 interactive workshops are planned and an additional 5 before the end of M36. In close collaboration with LINKS partners, procedures will be developed in order to obtain valuable results.

## Key Takeaways from this Section

- Dissemination activities aim at the disclosure of the LINKS results to practitioners, policy and decision makers, businesses, local communities, and researchers.
- LinkedIn will provide the professionals practical examples on how use LINKS results in their daily work, as well as how to apply them in local contexts. An average of 2-3 posts per month are shared monthly.
- ResearchGate and Academia will present results to a scientific audience through scientific publications and research reports.
- Online repositories (such as CMINE, CORDIS, and DRMKC) contain the materials (articles, visuals, deliverables, etc.) on the LINKS results. They will be updated monthly and will be more and more integrated with the other LINKS channels.
- With the planned release of the LINKS Community Center, this will become the most important channel for disseminating results. All the other channels will point at it.
- Infographics and videos will be used to disseminate in a captivating way key concepts and results, by using an accessible language and emphasizing how they are useful for specific target groups.
- Articles in specialised magazines will describe the practical implications of LINKS results in the work of specialists. A close collaboration between LCU and the news media allows to identify the topics to publish. Publications are realized during the entire project.
- Scientific publications will be addressed to a multidisciplinary community of researchers to enable exchange and the development of a new knowledge. The number publications will particularly increase in the next months.
- Policy recommendations on the application of social media and crowdsourcing in disaster management processes will be released in the last 4-5 months of the project.
- Participations in specialised events are planned in LINKS, actively engaging the LINKS partners. Events organised by the UNDRR, EC (especially under CERIS), and third parties (e.g. EENA2022, INTERSCHUTZ2022, Accessibility Days2022) represent some examples.
- Participation in scientific conferences (e.g. NEEDS2022, ISCRAM2022) will increase in the next future, as the LINKS results are being consolidated.
- Regular meetings with some networks (e.g. DRS-01 Cluster) allow to learn about other project results and disseminate LINKS ones. The joint participation and organization allow to optimize the efforts and to reach a wider audience.
- Academic partners will disseminate results to students through lectures. Training sessions are organised with LINKS Framework and LINKS Community Center users from M36.



- Interactive workshops allow to establish a constructive dialogue with the target groups around the results. Before the end of M30, 5 interactive workshops must have been done and an additional 15 before the end of M36.

## 7. EXPLOITATION ACTIVITIES

Exploitation refers to the utilisation of results in further activities other than those covered by the project, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities<sup>14</sup>. In Table 15, the preliminary results of the project and the LINKS partner owner of them. The results are owned by the partner that generates them and, in case of joint ownership of results, the joint owners can use them freely for non-commercial activities and to exploit the related result to grant non-exclusive licenses to third parties (Grant Agreement, Article 26). Moreover, results owners can decide to transfer the ownership of the result to a third party (Grant Agreement, Article 30). Access rights to results for exploitation activities is granted on fair and reasonable conditions and for research and educational purposes they are granted on a royalty-free basis (Grant Agreement, Article 31).

**Table 15: Ownership of LINKS Results**

| RESULTS   | OWNERSHIP            |
|---|----------------------|
| Including Citizens Handbook (WP2)                       | UNIFI, UCC, UCPH     |
| Educational Toolkit (WP2-WP6)                           | UNIFI, SCIT          |
| Pocket Ethics Guidelines (WP1-WP2-WP6)                  | VU, UNIFI, SCIT      |
| Resilience Wheel (WP3)                                  | UCPH                 |
| Social Media and Crowdsourcing Technology Library (WP4) | SIC                  |
| Social Media and Crowdsourcing Guideline Library (WP4)  | SIC                  |
| LINKS Framework (WP5)                                   | VU, UNIFI, UCPH, SIC |
| LINKS Community Center (WP7)                            | SIC                  |

Ownership does not indicate that other partners/stakeholders are outside of the development, uptake and exploitation of the results. At this stage in the project each result is developed across the cases with LINKS partners and externally stakeholders from relevant target groups. Moreover, some partners have more involvement with some specific results based on the focus in their cases. For instance, at this stage the development and exploitation of the Including Citizens Handbook is more oriented towards activities planned by practitioner partners in the Italian, Danish and Dutch cases. Further information of the exact roles of these partners in the development and exploitation the results can be found in the workplan for the cases (D6.3) delivered in November 2022.

In this section the main exploitation routes for each result are identified (7.1), a preliminary analysis of the market (7.2) and the way we intend to manage the innovations of the project (7.3) are

<sup>14</sup> Ala Mutka K. (2020). Dissemination and Exploitation in Horizon 2020. Retrieved December 16, 2020 from: [https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8\\_result-dissemination-exploitation.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/other/events/2017-03-01/8_result-dissemination-exploitation.pdf)

described. The strategy under these actions will receive a strong pulse thanks to the application to the Horizon Results Booster<sup>15</sup> services. In fact, in the moment of writing, LINKS has applied to (and is working on) the following services:

- PORTFOLIO DISSEMINATION & EXPLOITATION STRATEGY;
- BUSINESS PLAN DEVELOPMENT.

## 7.1 Exploitation Routes for the LINKS Results

In the next sections, we provide additional information and the general approach to exploit the LINKS results, by defining the exploitation routes, that is to say the processes and tools through which ensuring the use of the results and the possible barriers (the negative elements that can hinder the exploitation of results). The timing for exploiting the results differs depending on the maturity levels of the results. For instance the Resilience Wheel is in a stage of refinement but is already within an exploitable stage by stakeholders, whereas other results are still in earlier stages of development. **In the next Tables the exploitation route for each LINKS result can be found at the first stage dated May 2022. After this stage, using the supporting materials provided by the Horizon Results Booster platform, and with the consolidation of the realised results, a deeper exploitation strategy for each result is under definition. It will represent the core part of the D9.3, to be delivered in August 2023. An example of the final exploitation strategy for the LINKS results is present in the Annex II (the example refers to the SMCS Technologies Library)**

In this first round terms of Exploitation Routes, we considered the following categories:

- Products/Services: specific products and/or services that can make use of our results
- Future Research: new projects that can use our results, (PhD, Master Thesis) based on the results
- Open/Copy-Left Licenses: licenses ensuring that other people can use the results (especially in terms of IPR - Intellectual Property Rights (concerning the access conditions to the result)<sup>16</sup>.
- Policy/Societal Change: which actions ensure a policy change (e.g.: meetings, recommendations, etc.).

Table 16: Including Citizens Handbook Exploitation Routes

| INCLUDING CITIZENS HANDBOOK   |   |
|---|---|
| PROCESSES/TOOLS   | BARRIERS  |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Different ways to disseminate the Handbook (e.g. presentations, visuals, materials for lectures, publications, etc.)</li> </ul> | <ul style="list-style-type: none"> <li>• Resistance of practitioners in adopting</li> </ul> |

<sup>15</sup> Horizon Results Booster: <https://www.horizonresultsbooster.eu/>

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Integration on the LINKS Community Center and the LINKS website</li> <li>• Integration with similar results from other DRS-01 project (e.g. BuildERS, RESILOC, ENGAGE, RiskPACC, CORE)</li> <li>• MOOC and additional training courses for practitioners – Module on SMCS for emergencies</li> <li>• Individual paths of exploitation for the 4 different domains: Accessibility, Mobility, Awareness, Volunteering</li> <li>• Provision of specific content guidelines</li> </ul> | <p>and applying Social Media and Crowdsourcing in disaster management processes</p> |
| <p><b>Future Research:</b></p> <ul style="list-style-type: none"> <li>• Improvements and updates will depend on the basis of the future work of researchers involved in the LINKS results</li> </ul>  |   |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Creative Commons licences (Attribution-NonCommercial-ShareAlike)</li> <li>• Scientific results related to this results in open access</li> </ul>  |   |
| <p><b>Policy/Societal Change:</b></p> <ul style="list-style-type: none"> <li>• Recommendations on practices for including citizens in emergencies</li> </ul>  |   |

**Table 17: Educational Toolkit Exploitation Routes**

| EDUCATIONAL TOOLKIT   |   |
|---|---|
| PROCESSES/TOOLS   | BARRIERS  |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Different formats of Educational Toolkit</li> <li>• Bi-lingual services offered (English and Italian)</li> <li>• Meetings and workshops with the schools and the related teachers (contacts already established within the project)</li> <li>• Meetings and training courses with the practitioners involved in the project to make them aware of the importance of the toolkit and how to implement participatory processes with the children</li> <li>• Integration with similar results from other DRS-01 project (e.g. BuildERS)</li> <li>• Integration with external platforms (e.g. CMINE – Crisis Management Innovation Network Europe, DRMKC- Disaster Risk Management Knowledge Center, PreventionWeb)</li> <li>• PDT channels as fundamental for the contacts with the schools in the Italian context</li> <li>• Continuous tests, so that new features and activities will be implemented</li> </ul> | <ul style="list-style-type: none"> <li>• No specific barriers identified</li> </ul> |

|  |  |
|--|--|
| <p><b>Future Research:</b></p> <ul style="list-style-type: none"> <li>• Activated collaboration with AIIG (Associazione Italiana Insegnanti di Geografia), Missioni Geografiche, that could ensure continuity in implementation of the contents</li> <li>• Save the Children will apply it in future projects with children</li> </ul> |  |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Creative Commons licenses (Attribution-NonCommercial-ShareAlike 3.0)</li> <li>• Free access</li> <li>• Scientific results related to this results in open access</li> </ul>  |  |
| <p><b>Policy/Societal Change:</b></p> <ul style="list-style-type: none"> <li>• It will provide strategies to promote and implement intergenerational dialogue and collaboration in DRM</li> </ul>  |  |

**Table 18: Pocket Ethics Guidelines Exploitation Routes**

| POCKET ETHICS GUIDELINES   |   |
|--|---|
| PROCESSES/TOOLS  | BARRIERS  |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Different formats of the Pocket Guidelines (e.g. presentations, visuals, materials for lectures, publications, methods description, etc.)</li> <li>• Meetings and consulting activities with practitioners so that they can apply the Ethics Guidelines</li> </ul>   | <ul style="list-style-type: none"> <li>• No specific barriers identified</li> </ul> |
| <p><b>Future Research:</b></p> <ul style="list-style-type: none"> <li>• Application of the Ethics Guidelines in all the future research projects implemented by the LINKS partners</li> <li>• Meetings and workshops with researchers in social sciences to make them aware on how to take care of vulnerable groups in research</li> <li>• PhD and Master thesis and integration in courses at VU, UNIFI, UCPH, UCC, LCU</li> </ul> |   |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Creative Commons licenses (Attribution-NonCommercial-ShareAlike)</li> <li>• Scientific publications related to this results in open access</li> </ul>  |   |
| <p><b>Policy/Societal Change:</b></p> <ul style="list-style-type: none"> <li>• Recommendations on practices for including citizens in emergencies</li> </ul>   |   |

**Table 19: Resilience Wheel Exploitation Routes**

| RESILIENCE WHEEL   |          |
|--|----------|
| PROCESSES/TOOLS  | BARRIERS |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Working with similar projects (e.g. RESILOC) to integrate similar results</li> </ul> |          |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Activities (workshops, seminars, etc.) related to applying SMSC on a strategical level in organisations</li> </ul>   | <ul style="list-style-type: none"> <li>• Uptake of the wheel may not be to the extent expected</li> </ul> |
| <p><b>Future Research:</b></p> <ul style="list-style-type: none"> <li>• Meetings and workshops with European researchers on disaster resilience</li> <li>• Application of the Resilience Wheel and further testing in future projects</li> <li>• Visual model and assessment tool for research interested in understanding SMCS in disasters</li> <li>• Presentation of the wheel in master level courses, webinars, lectures at VU, UNIFI, UCPH, UCC, LCU, and conference presentations</li> </ul> |   |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Creative Commons licences (Attribution-NonCommercial-ShareAlike)</li> <li>• Scientific results related to this results in open access</li> </ul>  |   |
| <p><b>Policy/Societal Change:</b></p> <ul style="list-style-type: none"> <li>• Tested methodology for how to assess the application of SMCS in disaster management processes across various contexts and organisations</li> <li>• Visual model that provides a common foundation for understanding and discussing the application of SMCS in disasters (e.g. across actors or organisations)</li> </ul>   |   |

**Table 20: Social Media and Crowdsourcing Technology Library Exploitation Routes**

| SOCIAL MEDIA AND CROWDSOURCING TECHNOLOGY LIBRARY   |   |
|---|---|
| PROCESSES/TOOLS   | BARRIERS  |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Integration with external platforms (e.g. CMINE – Crisis Management Innovation Network Europe, DRMKC- Disaster Risk Management Knowledge Center, DGECHO Knowledge Network, PreventionWeb)</li> <li>• Cooperation with services/platforms provided by other projects (e.g. ENGAGE knowledge platform, RiskPACC)</li> <li>• Trainings and workshops (LAC, LCW)</li> <li>• Presentation to existing networks and associations (FEU, GDPC, EFA, DPPI SEE, vfdb, VdF, AGBF, DGSMTech)</li> <li>• Creation of the connection to the sales channels of the technology providers, becoming one of the communication channels for these technologies</li> <li>• Option to add new technologies and interact with the community</li> <li>• Support service for businesses for the identification of market potentials in specific fields</li> </ul> | <ul style="list-style-type: none"> <li>• Lack of understanding of the potentials of technologies by disaster management organisations</li> <li>• Lack of human skills and resources in the disaster management organisations for the use of technologies</li> <li>• Low contribution of the technology providers</li> </ul> |
| <p><b>Future Research:</b></p> <ul style="list-style-type: none"> <li>• New funding opportunities at the EU level where to exploit the library</li> </ul>   |   |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Creative Commons licenses (Attribution-NonCommercial-ShareAlike 3.0)</li> </ul>   |   |

**Table 21: Social Media and Crowdsourcing Guideline Library Exploitation Routes**

| SOCIAL MEDIA AND CROWDSOURCING GUIDELINE LIBRARY   |   |
|--|---|
| PROCESSES/TOOLS  | BARRIERS  |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Integration with external platforms (e.g. CMINE – Crisis Management Innovation Network Europe, DRMKC- Disaster Risk Management Knowledge Center, DGECHO Knowledge Network, PreventionWeb)</li> <li>• Cooperation with services/platforms provided by other projects (e.g. Engage knowledge platform, RiskPACC)</li> <li>• Presentation at scientific events and conferences (EENA, ISCRAM, etc.)</li> <li>• Trainings and workshops (LAC, LCW)</li> <li>• Presentation to existing networks and associations (FEU, GDPC, EFA, DPPI SEE,vfdb, VdF, AGBF, DGSMTech)</li> </ul> | <ul style="list-style-type: none"> <li>• Lack of user-friendly presentation and preparation of content for sufficiently high user acceptance</li> </ul> |
| <p><b>Future Research:</b></p> <ul style="list-style-type: none"> <li>• New funding opportunities at the EU level where to exploit the library</li> </ul>  |   |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Creative Commons licenses (Attribution-NonCommercial-ShareAlike 3.0)</li> </ul>  |   |
| <p><b>Policy/Societal Change:</b></p> <ul style="list-style-type: none"> <li>• Focused meetings with policy makers from different levels (local, regional, national, international)</li> <li>• Roundtables with DRS projects and joint recommendations</li> <li>• Increased resilience of the society through a better usage of SMCS</li> </ul>  |   |

**Table 22: LINKS Framework Exploitation Routes**

| LINKS FRAMEWORK   |  |
|---|--|
| PROCESSES/TOOLS   | BARRIERS   |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Integration of all the LINKS products within this result (considered per se as an exploitation tool)</li> <li>• Integration with and availability of the Framework through the LINKS Community Center</li> <li>• Future integration within specific online platforms (e.g. CMINE – Crisis Management Innovation Network Europe, DRMKC- Disaster Risk Management Knowledge Center, PreventionWeb, DGECHO Knowledge Network)</li> <li>• Additional training courses for practitioners</li> <li>• Workshops with practitioners, using templates for thinking around specific thematics/goals</li> <li>• Integration with similar results from other DRS-01 project (e.g. BuildERS, RESILOC, ENGAGE, RiskPACC)</li> </ul> | <ul style="list-style-type: none"> <li>• Resistance of practitioners in adopting and applying Social Media and Crowdsourcing in disaster management processes</li> <li>• Possibility of integration with already existing</li> </ul> |
| <p><b>Future Research:</b></p>  |  |

|  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• New funding opportunities and spinoff projects at the EU level (e.g. Horizon Europe - Cluster 3 “Civil Security for Society”, Erasmus+)</li> <li>• Meetings and workshops with European and extra-European researchers on disaster resilience</li> <li>• PhD and Master thesis and courses</li> </ul> | <p>European platforms</p> <ul style="list-style-type: none"> <li>• Winning of European projects exploiting the results</li> <li>• Users don't get enough experience with it to understand value added.</li> </ul> |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Creative Commons licenses (Attribution-NonCommercial-ShareAlike)</li> </ul>  |   |
| <p><b>Policy/Societal Change:</b></p> <ul style="list-style-type: none"> <li>• Policy Recommendations on the use of SMCS and discussion with policy makers at all the levels (local, national, European)</li> </ul>  |   |

**Table 23: LINKS Community Center Exploitation Routes**

| LINKS Community Center  |   |
|---|---|
| PROCESSES/TOOLS   | BARRIERS  |
| <p><b>Products/Services:</b></p> <ul style="list-style-type: none"> <li>• Connection with partners' research, e.g. integration with other software developed by SIC</li> <li>• Connection with already existing knowledge management products/platforms, such as: CMINE – Crisis Management Innovation Network Europe, DRMKC- Disaster Risk Management Knowledge Center, PreventionWeb, DGECHO Knowledge Network Network</li> </ul>         | <ul style="list-style-type: none"> <li>• Low perception of the difference between the LINKS Community Center and the existing platforms on related topics</li> <li>• Potentially low activity and community engagement within the LCC</li> <li>• Winning of further research projects to exploit the results</li> </ul> |
| <p><b>Future Research:</b></p> <ul style="list-style-type: none"> <li>• Technical know-how generated during the creation of the LCC for the implementation of further knowledge platforms</li> <li>• Integration of the knowledge mapped in the LCC into other research projects (using open and standardized API)</li> </ul>   |   |
| <p><b>Open/Copy-Left Licences:</b></p> <ul style="list-style-type: none"> <li>• Free access, registration optional</li> <li>• Creative Commons licenses (e.g., Attribution-NonCommercial-ShareAlike 3.0) for content wherever possible</li> <li>• Publication of technical results as free software under the MIT license wherever possible. This includes extensions and bugfixes developed for the used open-source components</li> </ul> |   |

As anticipated, the exploitation routes described in the Tables 16-23 represent a first round of definition. With the work carried out within the Horizon Results Booster platform, a more precise definition is conducted. In the Annex II, the exploitation route created with the assistance of the Horizon Results Booster experts applied to the Social Media and Crowdsourcing Technology Library



is presented. It is the result of the Service 1 - Module C 'Assisting projects to improve their existing exploitation strategy', completed in October 2022. The second round of exploitation route definition, currently in progress, will be released in D9.3 'Updated LINKS dissemination, exploitation and communication strategy 2'.

## 7.2 LINKS Market Analysis

In this section a description of the market is provided, by focusing, for each target group, on the following aspects:

- Needs of the target groups that the LINKS results intend to address;
- Stakeholders, which contains a description of the existing stakeholders (at local, national, and international levels) and what are their main areas of application, in order to be aware of the possible users of the LINKS results;
- Competitors, which focuses on the main EU research projects focusing on results similar to the LINKS results. Competitors in this instance are considered entities with which a complementary competition is established. Indeed, a particular attention is paid in this section to the projects part of the DRS-01 Cluster, by focusing on what they offer to the target groups, already considered as a central part of the exploitation routes (section 7.1);
- Unique Value Proposition (UVP), which focuses on the benefit that LINKS can offer to the target groups (currently not offered by any other project).

With the application to the Horizon Results Booster service 'Business Plan Development' we are going more in depth on the identification of stakeholders and competitors. Some indications related to these aspects are present in the Annex II.

**Table 24: Market Analysis. Focus on Practitioners**

| MARKET ANALYSIS - PRACTITIONERS |   |
|---------------------------------|---|
| <b>NEEDS</b>                    | <ul style="list-style-type: none"> <li>• Including diverse communities and vulnerable groups (including children) in disaster risk management processes</li> <li>• Understanding how social media can contribute to including citizens and in disaster resilience</li> <li>• Understanding what the existing technological solutions for disasters management are, what are they possible applications, and how to use them</li> <li>• Making informed decisions on the use of SMCS in disasters according to their specific needs</li> </ul> |
| <b>STAKEHOLDERS MAP</b>         | <p>About 15 practitioner networks have been identified at the international level, such as the International Association of Fire &amp; Rescue Services (CTIF) - which aims to improve the working conditions for firefighters through ongoing dialogue, analysis and sharing of lessons learned from incidents, accidents and fires throughout the world.</p>   |

|                           |   |
|---------------------------|---|
|                           | <p>Additionally, more than 50 practitioner networks have been identified at the national level, focusing on the countries where the LINKS cases take place. Some examples are illustrated below:</p> <ul style="list-style-type: none"> <li>• DK: Danske Beredskaber is an association of all the municipal emergency units in the country and works to develop and improve emergency preparedness in Denmark.</li> <li>• GE: Arbeitsgemeinschaft der Leiter der Berufsfeuerwehren (Association of Chief Fire Officers of Professional Fire &amp; Rescue Service in the Federal Republic of Germany) is the association of all professional fire services. The AGBF is a self-supporting association within the German Association of Cities (DST) and has branches in all German federal states (Länder).</li> <li>• IT: The National Alpine Rescue Services (Corpo Nazionale Soccorso Alpino e Speleologico - CNSAS) is a free non-partisan, non-political and no-profit voluntary organization that provides the recovery of injured, precarious people and the rescue of fallen people in the mountain territory, in the underground environment and in the arduous areas of the national territory.</li> <li>• NL: The Royal Dutch Rescue Society (Koninklijke Nederlandse Redding Maatschappij) helps and rescues people in distress on the water.</li> </ul>   |
| <p><b>COMPETITORS</b></p> | <ul style="list-style-type: none"> <li>• BuildERS: has identified an assessment tool to identify the most vulnerable groups and the ones more likely to be affected by a crisis and come up with solutions improving disaster preparedness. They also have identified guidelines for Ethics Assurance as well as specific guidelines addressed to practitioners for collaborating with social media influencers. Fundamental is also the “Inclusive Crisis Communication Canvas Tool”, which intends to improve the communication of DMOs and make crisis communication more inclusive.</li> <li>• RESILOC: has realised tools for the collection, classification, and elaboration of information on communities resilience, planning specific strategies</li> <li>• ENGAGE: will provide practitioners with a trustworthy and resilient communication channel which can provide immediate information from every device and in every situation.</li> <li>• RiskPACC: is developing a platform - the RiskPACC platform - that will encompass the RiskPACC tools, a digitized version of the framework on the Risk Perception Action Gap (RPAG), a repository of good practices and gaps, and training material for making use of the methodology and tools. Expected users are Civil Protection Agencies (CPA) and communities. Moreover, a tool for crowd-sourcing from publicly available data is expected to be developed. The tool will offer CPA users to gain real-time alerts and situational awareness on their domain of expertise. It allows CPA to recognize at early stages signs of</li> </ul> |

|            |   |
|------------|---|
|            | an emerging disruption and to support operational decisions based on a comprehensive overview of an emerging or ongoing event and its effects on the public.                  |
| <b>UVP</b> | LINKS offers guidance how to integrate SMCS into the disaster management activities of practitioners in the most efficient way with respect to technology and human resources |

**Table 25: Market Analysis. Focus on Policy Makers**

| <b>MARKET ANALYSIS – POLICY MAKERS</b> |  |
|--|--|
| <b>NEEDS</b>                           | <ul style="list-style-type: none"> <li>• Knowing the existing guidelines on the use of SMCS in emergency situations</li> <li>• How to translate the available policies and standards in their decision-making processes and practices</li> <li>• Developing more inclusive and people-centered emergency plans</li> <li>• Developing policies in disaster management processes following a holistic approach</li> <li>• Having examples on how use technological solutions in disaster management processes</li> </ul>   |
| <b>STAKEHOLDERS MAP</b>                | <p>Policy makers, and related networks, have been identified at the international, EU and national level.</p> <p>At the international level we have identified about 10 relevant entities, among which Making Cities Resilient 2030 (MCR 2030), a global partnership aiming at strengthening local resilience. Its ultimate goal is to ensure cities become inclusive, safe, resilient and sustainable by 2030, contributing directly to the achievement of Sustainable Development Goal 11 and other global frameworks including the Sendai Framework for Disaster Risk Reduction, the Paris Agreement and the New Urban Agenda.</p> <p>At the EU level we have identified about 15 relevant entities, among which the Union Civil Protection Knowledge Network (CPKN) aims to strengthen the Union Civil Protection Mechanism in the prevention, preparedness and response phase of disasters. It brings together civil protection and disaster management actors to collaborate and learn from each other with the objective of strengthening the EU's overall ability and capacity to deal with disasters.</p> <p>At the national level we have identified more than 20 relevant entities, among which:</p> <ul style="list-style-type: none"> <li>• DK: The Danish Emergency Management Agency (DEMA) is a governmental agency under the Ministry of Defence. Its principal task is to manage an operational part who work out of six Emergency Management Centres, and administrative and legalizing part, who supervises the national and municipal rescue preparedness and advises the authorities on matters of preparedness.</li> <li>• GE: Bundesamt für Bevölkerungsschutz und Katastrophenhilfe (BKK) is the Federal Office for Citizen Protection and Disaster Support. In the BBK, all areas</li> </ul> |

|                    |   |
|--------------------|---|
|                    | <p>of civil safety &amp; security provision are combined in an interdisciplinary manner and thus into an effective protection system for the entire population</p> <ul style="list-style-type: none"> <li>• IT: Protezione Civile Regione Umbria - The regional civil protection structure carries out planning, forecasting and risk prevention activities, in order to safeguard public and private safety as well as to develop a widespread diffusion of the "civil protection culture".</li> <li>• NL: Rijkswaterstaat is part of the Dutch Ministry of Infrastructure and Water Management and it is responsible for the design, construction, management and maintenance of the main infrastructure facilities in the Netherlands.</li> </ul>  |
| <b>COMPETITORS</b> | <ul style="list-style-type: none"> <li>• BuildERS: has identified guidelines for Ethics Assurance, as well as specific guidelines addressed to practitioners for collaborating with social media influencers in crisis communication processes.</li> <li>• RESILOC: has realised tools for the collection, classification, and elaboration of information on communities resilience, planning specific strategies</li> <li>• ENGAGE: is proposing emergency response strategies to bring the population closer to rescuers and authorities, bridging the gap between formal and informal guidelines in specific contexts. In particular, it aims to develop solutions that emergency responders and authorities can use and implement to reach out the civilians and improve the interaction with them during a disaster.</li> <li>• CORE: Best practice and best procedures on how to measure, control and mitigate the impact of different natural and man-made disasters on the populations, particularly on vulnerable groups, will be identified and reported to policymakers.</li> <li>• RiskPACC: will provide recommendations for decision makers and disaster resilience stakeholder groups on how to reduce the RPAG and facilitate engagement between Civil Protection Authorities (CPAs), Civil Society Organisations (CSOs) and citizens, including volunteers.</li> </ul> |
| <b>UVP</b>         | <p>Policy Makers are provided with a set of concrete recommendations capturing the formal and informal standards, procedures and guidelines across Disaster Management Organizations for applying SMCS in disasters</p>   |

**Table 26: Market Analysis. Focus on Developers**

| <b>MARKET ANALYSIS - DEVELOPERS</b> |   |
|-------------------------------------|---|
| <b>NEEDS</b>                        | <ul style="list-style-type: none"> <li>• Understanding how to conduct research with vulnerable groups in disaster risk management studies</li> <li>• Studying variables that impact on risk perception and vulnerability of disasters and understanding how SMCS can intervene</li> </ul> |

|                         |  |
|-------------------------|--|
|                         | <ul style="list-style-type: none"> <li>• Studying drivers that influence societal resilience from disasters and how SMCS can intervene</li> <li>• Mapping the technological solutions currently used in disaster scenarios</li> </ul>  |
| <b>STAKEHOLDERS MAP</b> | <p>More than 15 research networks have been identified at the international level, such as: the Community of European Research and Innovation Security (CERIS) which aims to analyse identified capabilities, needs and gaps in the corresponding areas, to identify solutions available to address the gaps, to translate capability gaps and potential solutions into research needs, to identify funding opportunities and synergies between different funding instruments, and to identify standardisation needs.</p> <p>Besides, about 20 research networks relevant to LINKS have been identified at the national level, among which:</p> <ul style="list-style-type: none"> <li>• DK: The ITU Center for Information Security and Trust (ITU CIST) provides a multidisciplinary research environment, delivering knowledge and capacity necessary to tackle modern cybersecurity challenges from a societal, legal, organizational, and technical point of view.</li> <li>• GE: The Center for Disaster Management and Risk Reduction Technology (CEDIM) is an interdisciplinary research institution of the Karlsruhe Institute of Technology (KIT) in the fields of disasters and natural risks. It conducts research on the causes, management and prevention of natural and technical risks as well as the resilience of a changing society and environment.</li> <li>• IT: The Consortium “Italian Centre for Risk Reduction” (CI3R) is a non-profit entity to promote the coordination, enhancement and development of scientific research, technological transfer, and formation activities in the field of disaster risk reduction in Italy, the European Union and within the international context.</li> <li>• NL: University of Twente's Faculty of Geo-Information Science and Earth Observation (UT-ITC).</li> </ul> |
| <b>COMPETITORS</b>      | <ul style="list-style-type: none"> <li>• RiskPACC: the project aims, among others, to advance multi-disciplinary understanding of disaster resilience by drawing on social science, humanities, technical, digital, geographical, and human factors concepts.</li> </ul>   |
| <b>UVP</b>              | <p>Researchers are provided with a multidisciplinary methodology to study disaster risk governance by looking at SMCS in crisis across three dimensions: social, institutional, and technical</p>  |

**Table 27: Market Analysis. Focus on Local Communities and Citizens (Civil Society)**

| <b>MARKET ANALYSIS – CIVIL SOCIETY</b> |   |
|--|---|
| <b>NEEDS</b>                           | <ul style="list-style-type: none"> <li>• Increasing the disaster risk awareness and create space for the participation of local communities to decision making processes</li> </ul> |

|                                |  |
|--------------------------------|--|
|                                | <ul style="list-style-type: none"> <li>• Knowing how other local communities have applied SMCS during disasters</li> </ul>   |
| <p><b>STAKEHOLDERS MAP</b></p> | <p>About 15 civil society networks, organisations and associations have been identified at the international level, such as the Global Network of Civil Society Organisations for Disaster Reduction (GNDR), a voluntary network of civil society organisations, associations and individuals who are committed to working together, and engaging with partners and other stakeholders, to increase community resilience and reduce disaster risk around the world.</p> <p>Besides, about 30 civil society networks, organisations and associations have been identified at the national level, among which:</p> <ul style="list-style-type: none"> <li>• DK: The National Network for Climate Adaptation (Det Nationale Netværk for Klimatilpasning - DNNK) is based on the desire to consolidate existing networks and projects in the field of climate adaptation.</li> <li>• GE: The German Federation of the Deaf (Deutscher Gehörlosen-Bund - DGB) is as a socio-political, cultural and professional interest group for the deaf in Germany and acts as a forum for the sign language community.</li> <li>• IT: The Italian Lazarus Union Corps, a non-profit voluntary organisation with the purpose of social assistance and support, civil protection, protection and enhancement of cultural and landscape heritage.</li> <li>• NL: The Eye Association Netherlands (Oogvereniging) offers a range of services to blind and partially sighted persons, persons with an eye condition or deafblindness. They also actively lobby for improved eye care and inclusion.</li> </ul> |
| <p><b>COMPETITORS</b></p>      | <ul style="list-style-type: none"> <li>• BuildERS: has created a board game to enhance children preparedness and resilience in 4 different case scenarios</li> <li>• RESILOC: has realised tools for the collection, classification, and elaboration of information on communities resilience</li> <li>• ENGAGE: is proposing emergency response strategies to bring the population closer to rescuers and authorities, bridging the gap between formal and informal guidelines in specific contexts. In particular, it aims to develop solutions that emergency responders and authorities can use and implement to reach out the civilians and improve the interaction with them during a disaster.</li> <li>• CORE: will develop a set of guidance materials to implement and monitor initiatives with local communities to improve preparedness, adaptability, and resilience to risks.</li> <li>• RiskPACC: is developing a platform - the RiskPACC platform - that will encompass the RiskPACC tools, a digitized version of the framework on the Risk Perception Action Gap (RPAG), a repository of good practices and gaps, and training material for making use of the methodology and tools. Expected users are Civil Protection Agencies (CPA) and</li> </ul>   |

|            |   |
|------------|---|
|            | communities. Moreover, a crowd-sourcing tool for environmental assessment is expected to be developed. This tool will be used by citizens to provide images, annotations, sensory data, event reports and videos to the other toolbox components. |
| <b>UVP</b> | The application of the LINKS results allows civil society to be more prepared to face disaster scenarios, enhancing the resilience of the local communities.  |

**Table 28: Market Analysis. Focus on Businesses**

| <b>MARKET ANALYSIS - BUSINESSES</b> |   |
|-------------------------------------|---|
| <b>NEEDS</b>                        | <ul style="list-style-type: none"> <li>• Making the products they sell more inclusive</li> <li>• Expanding the range of their products, based on the gaps in disaster technologies market, getting new ideas for new product development</li> <li>• Knowing existing guidelines and policies on the use of SMCS in disasters</li> </ul>   |
| <b>STAKEHOLDERS MAP</b>             | <p>About 10 business networks have been identified at the international level, such as UITP (Union Internationale des Transports Publics) is the international network for public transport authorities and operators, policy decision-makers, scientific institutes and the public transport supply and service industry. It brings together more than 450 urban, suburban and regional public transport operators and authorities from all member states.</p> <p>Besides, about 10 business networks have been identified at the national level, such as:</p> <ul style="list-style-type: none"> <li>• DK: The Danish Institute of Fire and Security Technology (DBI) works with the aim of protecting lives and properties. It offers a wide range of services within fire prevention, fire technology and security and supports its customers achieving the best safety solutions.</li> <li>• GE: VdS Schadenverhütung GmbH is one of the world's most renowned institutions for corporate security with a focus on fire protection, security, natural hazard prevention and cyber security. Its services include risk assessments, testing of systems, certification of products, companies and specialists, and a wide range of training courses.</li> <li>• IT: The Italian Professional Association for Environment and Security (Associazione professionale Italiana Ambiente e Sicurezza - AIAS) network is the most important real and virtual technical-scientific Italian community of professionals inside and outside organisations dealing with safety, health and environment and sustainability.</li> <li>• NL: COT - Instituut voor Veiligheids- en Crisismanagement focuses its activities on crisis management and security issues.</li> </ul> |
| <b>COMPETITORS</b>                  | <ul style="list-style-type: none"> <li>• RiskPACC: is assessing the impact of novel technologies (e.g. tracking apps) to increase risk perception, and developing guidelines for development and implementation of future technological solutions.</li> </ul>   |

|            |   |
|------------|---|
| <b>UVP</b> | The use of the LINKS results allows businesses to better understand the market and to realise products tailored to the needs of practitioners and take into account the aspects of (citizens) inclusion |
|------------|---|

**Table 29: Market Analysis. Focus on Disseminators**

| <b>MARKET ANALYSIS - DISSEMINATORS</b> |  |
|--|--|
| <b>NEEDS</b>                           | <ul style="list-style-type: none"> <li>Disseminate news in local emergencies</li> <li>Fighting fake news</li> </ul>  |
| <b>STAKEHOLDERS MAP</b>                | <p>More than 10 disseminator stakeholders have been identified at the international level, including the Journal of Flood Risk Management - published on behalf of the Chartered Institution of Water and Environmental Management provides an international platform for knowledge sharing in all areas related to flood risk. Its explicit aim is to disseminate ideas across the range of disciplines where flood-related research is carried out and it provides content ranging from leading edge academic papers to applied content with the practitioner in mind.</p> <p>Besides, about 20 disseminator stakeholders have been identified at the national level, such as:</p> <ul style="list-style-type: none"> <li>DK: P1 is Denmark's largest talk radio channel, providing listeners with perspectives, challenges and information on society, culture and science.</li> <li>GE: Behörden Spiegel is Germany's largest and oldest magazine for the state authorities and its employees. The monthly Behörden Spiegel is the information medium for public administration with the highest acceptance.</li> <li>IT: La Protezione Civile Italiana, the first monthly periodical of information and studies on the activity of prevention, relief and environmental protection in Italy. The magazine proposes to sensitize the public opinion on the programs carried out regarding the prevention of natural or man-made calamities, interventions for the recovery of economic and social life in the affected areas, measures to be taken against environmental degradation, fires and floods.</li> <li>NL: Brand &amp; Brandweer features articles about the fire service in all its facets: repression &amp; prevention, disaster relief &amp; crisis management, management &amp; organisation and current news from the fire brigades.</li> </ul> |
| <b>COMPETITORS</b>                     | <ul style="list-style-type: none"> <li>RiskPACC: aims to increase knowledge on the use of new technologies and media to close the RPAG in relation to their role, value and impact for CPAs, CSOs, citizens and other actors across different disaster phases.</li> </ul>  |
| <b>UVP</b>                             | Disseminators are provided with information how DMOs approach the challenge of including SMCS into their strategic planning. Furthermore they are informed about technological solutions which allow to obtain information from SMCS regarding a disaster.   |



### 7.3 Innovation Management

Innovation has been defined by several authors and organisations. The EC Green Paper on Innovation indicates that the term 'innovation' is commonly used in two different ways: to refer to the innovation process itself (i.e. the process of bringing any new, problem-solving idea into use) and to refer to the result of the innovation process (i.e. a new product, process, service or work practice). As such, an innovation may be a radical innovation/breakthrough or a product, process or service improvement or an adaptation<sup>17</sup>.

With this backdrop, in LINKS innovations are expected to fall into three categories:

- **Scientific Innovations:** it is expected that the findings across the case assessments and evaluation of the LINKS Framework will lead to new and innovative scientific contributions from the academic partners in the Consortium. These findings could involve new methodological and conceptual approaches for studying the effects of Social Media and Crowdsourcing (SMCS) on disaster resilience, and ground-breaking understandings on the impact of diversity among the knowledge domains.
- **Technical Products and Services:** the focus on Disaster Community Technologies and Social Media and Crowdsourcing will produce innovation via the LINKS Framework, in the form of a structured overview and assessment of Social Media and Crowdsourcing technologies on the market and guidelines on the usage of these technologies.
- **Processes, Procedures and Policies:** the knowledge gained through the various means of stakeholder engagement, such as the LINKS Community Center and the LINKS Community Workshops, will inform the innovation potential of the guidelines in the LINKS Framework. This will help build awareness of Disaster Risk Perception and Vulnerability and new Disaster Management Processes for interacting with Social Media and Crowdsourcing products. Practitioners will further benefit directly from learning, adopting, and progressing tested services and procedures for Disaster Management Processes in light on new Disaster Community Technologies developments, and under diverse conditions. Community innovation will further stem from the impact evaluations of past national and EU science-based policies regarding Disaster Community Technologies and Social Media and Crowdsourcing in Disaster Management Processes.

At the same time, and in relation to the exploitation plan in LINKS, each innovation result developed in the project is expected to generate one (or more) scientific, economic, and societal impacts (Section 3, Table 4).

There are several different innovation process models described in the literature. Most models start with idea generation to identify potential innovations. In the next step the bandwidth of ideas is narrowed down to select the possible innovations for a project or an organisation. Next comes the

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<sup>17</sup> European Commission (1995): Green Paper on Innovation. COM (95) 688 final, 20 December 1995. Bulletin of the European Union Supplement 5/95. Retrieved from: <http://aei.pitt.edu/1218/>

actual development or prototyping of the product or service. Subsequently the prototype is tested with possible end-users. The last steps are the market or sector launch of the product or service. LINKS builds from these approaches, adapting them to better suit the context and scope of the project, as illustrated in Figure 3.



Source: Adapted from Steps of an Innovation Process (Eveleens 2010)<sup>18</sup>

Innovation management has been described as a discipline that deals with issues relating to how the innovation process could be managed effectively (Harkema and Browrys 2002)<sup>19</sup>. More specifically, in LINKS it refers to the process through which the progress of expected innovative results of the project is monitored.

Table 30 provides an example on how the LINKS innovation management process is applied to one of the main innovative results expected from the project, namely the Disaster Community Technologies-schema.

- Innovation result: the result expected to be generated in LINKS;
- Innovation type: one or more of the three categories (presented above) the innovation result is expected to fall into;
- Innovative potential: a result can be considered to have an innovative potential if it represents 1) a breakthrough, or 2) a product, process or service improvement or 3) an adaptation;
- Expected impact: definitions of scientific, economic and societal impact;
- Current status: identifies at which step of the innovation process (5-step schema above) the result is;
- Next step: defines the next step of the innovation process the result should go through in order to achieve the Innovation Management end-goal that is, introducing the result in the market sectors targeted.

**Table 30: Innovation Management Schema**

| INNOVATION MANAGEMENT - Example |   |
|---------------------------------|---|
| <b>INNOVATION RESULT</b>        | Social Media and Crowdsourcing Technology Library |

<sup>18</sup> Eveleens, Chris (2010): Innovation management; a literature review of innovation process models and their implications. Retrieved from: <https://www.researchgate.net/publication/265422944>

<sup>19</sup> Harkema, S. J.; Browrys, M. J. (2002): Managing Innovation Successfully: A Complex Process. In: European Academy of Management Annual Conference Proceedings. EURAM.

|                             |   |
|-----------------------------|---|
| <b>INNOVATION TYPE</b>      | Technical Products and Services: the Social Media and Crowdsourcing Technology Library (the conceptual model of the library is explained under the name DCT-schema in Deliverable 4.1.) gathers and structures information about existing social media and crowdsourcing technologies to grasp the overwhelming market and to guide the selection and application of these technologies. The motivation is to make the confusing and rapidly evolving market more accessible and tangible to stakeholders.  |
| <b>INNOVATIVE POTENTIAL</b> | The Social Media and Crowdsourcing Technology Library enables the classification and comparison of DCT based on a set of categories, and it provides a comprehensive overview of DCT to support their selection in mitigation and preparedness phase before disaster situations will occur  |
| <b>EXPECTED IMPACT</b>      | <ul style="list-style-type: none"> <li>• Scientific: making the Social Media and Crowdsourcing Technology Library available to the scientific community will make it the one-stop shop when researchers want to find out about DCT. In science and in general, such a market overview and classification of DCT is not yet available. This innovation will generate a lot of space for new research.</li> <li>• Economic: giving businesses the possibility to better understand the markets and moreover, the needs of practice. Based on this, new technologies and interactive applications addressed to the target groups and individual citizens can be developed.</li> <li>• Societal: the Social Media and Crowdsourcing Technology Library will allow to identify the most suitable technological solutions for handling data coming from SMCS, thus supporting the disaster resilience of EU communities.</li> </ul> |
| <b>CURRENT STATUS</b>       | Under development: The first draft of the Social Media and Crowdsourcing Technology Library was developed already early in the project, formerly known as “DCT-schema” (September 2020). Since then, it has been constantly refined in many internal and external feedback sessions. It was also presented and discussed at the ISCRAM 2021 conference. Furthermore it was also discussed with different types of stakeholders within several workshops (e.g. “digital week” of DGSM-Tech e.V. in November 2021, second LINKS Advisory Committee meeting in February 2022 or in two LINKS Community Workshops (“safety camp” in April 2022 and another LCW with special forces of the police in May 2022).The draft of the Social Media and Crowdsourcing Technology Library is already implemented as a web-based interface in the LINKS Community Center, where it is publicly accessible.                                  |
| <b>NEXT STEPS</b>           | Prototype validation: In the next steps of validation the experiences and results from the first case-based assessment in LINKS will be analysed to refine the Social Media and Crowdsourcing Technology Library. In the first case-based assessment, different research instruments (e.g., expert interviews and online survey) were used to validate the Social Media and Crowdsourcing Technology Library. The collected feedback is currently   |

consolidated and, together with new insights from ongoing activities (e.g. market analysis, research, internal and external discussions), improvements to the library are made. These changes will then be also validated as part of the iterative development process.

### Key Takeaways from this Section

- 8 main LINKS results have been identified. For each of them exploitation routes, that ensure how target groups can make use of them, have been identified.
- LINKS Market Analysis, focusing on needs that the target groups have and the benefits that LINKS can give to them, as well as on stakeholders groups and competitors, are identified
- In LINKS, Innovation Management is the process through which the progress of expected innovative results of the project is monitored. An example for the Social Media and Crowdsourcing Technology Library is provided.
- The access to the Horizon Results Booster services (for which LINKS already applied) allows to strengthen the exploitation activities described in this section.

## 8. OVERVIEW OF DEC ACTIVITIES: THE ROADMAP

Table 31 contains the overview of the dissemination, exploitation, and communication activities of LINKS from M24 to M42 (and for exploitation activities also after M42). The indicated months are, however, indicative. They will be adjusted as the projects evolves.

Table 31: Roadmap of DEC Activities in LINKS

|  |                                    | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | AFTER THE END OF THE PROJECT |  |  |
|--|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------------------------|--|--|
| LINKS and Partners Website                             | Planning of activities             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Publication                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| LINKS and Partners (Professional) Social Media         | Planning of activities             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Publication                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| Newsletter   | Realisation of the articles        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Sending to the subscribers         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| Press Release  | Realisation                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Sending to the database            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| Leaflets   | Planning and graphical realisation |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Distribution                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| Articles in Informative and Sector Magazines and Blogs | Planning and realisation           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Publication                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| Informative Events                                     | Planning and preparation           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Participation                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| Sector Events  | Planning and preparation           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Participation                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
| LINKS Conference                                       | Organization                       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |
|  | Realisation                        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |  |

|  |   | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | AFTER THE END OF THE PROJECT |  |
|--|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------------------------|--|
| <b>Online Repositories</b>             | <i>Scouting and strategy definition</i> |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Publication</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>LINKS Community Center</b>          | <i>Realisation</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Use</i>                              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>Infographics</b>                    | <i>Strategy definition</i>              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Realisation</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Publication</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>Videos</b>                          | <i>Strategy definition</i>              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Realisation</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Publication</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>Scientific Publications</b>         | <i>Scouting</i>                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Publication</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>Policy Recommendations</b>          | <i>Strategy definition</i>              |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Realisation</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Publication</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>Networks and Projects connected</b> | <i>Planning of activities</i>           |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Realisation of the actions</i>       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>Training and Lectures</b>           | <i>Planning</i>                         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Lectures/Trainings</i>               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
| <b>Interactive Workshops</b>           | <i>Planning and Organisation</i>        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |
|  | <i>Realisation</i>                      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                              |  |

## 9. CONCLUSION

This deliverable presents the updating of the Dissemination, Exploitation and Communication strategy for LINKS. It has been elaborated on the basis of the initial strategy, defined in D9.1 ('LINKS Dissemination, Exploitation, and Communication Strategy'), with the feedback provided by the REA in the project annual reporting and with the results of the 'First status report on the development and distribution of dissemination materials' (D9.4).

As demonstrated in section 3, in the upcoming period we will work towards reaching a positive impact at the scientific, economic, and societal levels, notably for the target groups. To do this, targeted communication, dissemination, and exploitation activities are planned. As argued in section 5, a stronger collaboration with LINKS partners, allows LINKS to share results-based contents, especially via the LINKS website and social media channels, and to engage partners' networks of stakeholders. This, in turn, can benefit other LINKS channels, as well. Moreover, we aim to reach non-academic realms as well, by publishing in informative magazines in order to create awareness regarding the use of SMCs in disaster management. Then, as argued in section 6, the upcoming period will specifically focus on the impact of LINKS' results on the work of researchers (e.g.: scientific publications, lectures), practitioners (e.g.: sector events, LinkedIn, etc.), local communities (e.g. interactive workshops), and policy makers (e.g. policy recommendations). A specific strategy to reach these objectives is indicated in section 4 (the organisation of activities for diverse communication and dissemination activities) and in section 3 (dedicated to targets to reach at M30 and M36). The definition of the exploitation routes in section 7 will determine the key aspects that allow the target groups to use the realised deliverables and results.

The strategy defined in this deliverable will be updated in M39 of the projects (that will also allow to realise the D9.3 'Updated LINKS Dissemination, Exploitation and Communication Strategy 2') on the basis of the results presented in the annual report that will be provided at M37 (that will also allow to realise the D9.5 'Second status report on the development and distribution of dissemination materials'). The updating to the Dissemination, Communication, and Exploitation strategy will receive particular input from the application to the Horizon Results Booster services, mentioned in section 7.

## ANNEX I: DIVERSITY IN COMMUNICATION AND DISSEMINATION

Considering diversity in all Dissemination, Exploitation and Communication activities is essential to better include vulnerable groups. After analysing the use of Social Media and Crowdsourcing (SMCs) during emergencies, the Ethics Advisory Board has developed a set of targeted recommendations to enhance their accessibility, which are published in the 'Pocket Guidelines for Accessibility in Dissemination'. Given the importance of their recommendations, LINKS has adopted these as part of the Dissemination, Exploitation and Communication Strategy. Importantly, they can also be used by practitioners, e.g. first responders responsible for communication during emergencies.

**Table 32: Diversity in Communication and Dissemination**

| TOPICS  | INDICATIONS  | ACTIONS TO DO  |
|---|--|--|
| <b>Visual communication (figures, tables, videos, etc.)</b> | Using visual materials to visually guide/summarise contents for people with visual and hearing impairment and no-native speakers/linguistic minorities, amongst others | Realise tables, infographics, visuals, videos with text (that explains the meaning of figures), explanatory headings to images, and the subtitles for the videos, when possible, in different languages (including the LIS translation)  |
|   | Paying attention to the meaning of used signs and symbols (especially considering cultural/religious minorities but also people with hearing disabilities)             | <ol style="list-style-type: none"> <li>1. Use visuals, icons and symbols that are not offensive/problematical for other cultures</li> <li>2. Do not use emoticons, to avoid misunderstanding and confusion (especially for people with visual disabilities using a screen reader)</li> </ol> |
|   | Keeping simple visual materials (e.g., in infographics, leaflets, etc.) to make content understandable to everyone   | Put a small text to describe images and tables, avoiding scientific or technical jargon and adapted to the expected audience   |
|   | Applying coherence in visual and graphical elements  | Always use the same colours/icons to express the same concept to not generate misunderstanding   |
|   | Paying attention to the Gestalt rules (principles/laws of human perception that describe how we group similar elements, recognize patterns and simplify images)        | Apply the laws of 'figure unification' when you realise a visual that communicates a specific message (e.g. be aware that the relation among the single elements is perceived according to the meaning you want to create)   |
|   |  | Font:  |



|  |  |   |
|--|--|---|
| <b>Readability of materials and communication channels</b> | Improving the readability of materials for people with visual and hearing impairment | <ol style="list-style-type: none"> <li>1. Use appropriate dimensions (i.e., 18-point dimensions)</li> <li>2. Use simple and accessible fonts to read (i.e., Arial, Calibri, Helvetica)</li> </ol>   |
|  |  | <p>Use in an appropriate way contrast and colours in the texts and in the tables</p> <ol style="list-style-type: none"> <li>1. Black-white; yellow-blue are good</li> <li>2. Colour-blind people have difficulties with reading red and green; try to avoid these colours in texts</li> </ol>   |
|  |  | <p>Use tables that are easy to read and to understand without any explanation</p> <ol style="list-style-type: none"> <li>1. Headings should be clearly recognisable</li> <li>2. Maintain an intuitive reading order</li> <li>3. Repeat the header row at the top of each page (should tables exceed more than one page)</li> <li>4. Do not divide rows and columns</li> </ol>   |
|  |  | <p>Organise the elements based on the reading order without overlapping</p>   |
|  | During events  | <p>Use different styles to explain the same content, e.g. text, visuals, speech, videos etc.</p>  |
|  |  | <p>Make sure as many people as possible have the opportunity to participate to events:</p> <ol style="list-style-type: none"> <li>1. Create a link to participate online, using LIS translation to include visually impaired people</li> <li>2. Use a suitable language (appropriate and accessible across different age groups, abilities, ethnic groups, languages, and locations. The information should also be user-friendly)</li> <li>3. Include subtitles and real time translation</li> </ol> |
|  |  | <p>Make key results accessible to diverse channels (e.g. printed materials and digital ones)</p>  |
| <b>Language and content</b>                                | Reaching people with different cultural backgrounds                                  | <p>Translate key materials in different languages (on the basis of the dissemination/communication needs)</p>   |
|  | Providing to the target groups the results relevant for them                         | <p>Adapt jargon to the level of expertise of the target group</p> <ol style="list-style-type: none"> <li>1. Experts: technical language</li> <li>2. Broader people: accessible language</li> </ol> <p>Define specific key messages starting from the specific needs of the target groups</p>  |

|                         |   |  |
|-------------------------|---|--|
|                         |   | Avoid slang, acronyms and colloquial expressions (use international acronyms, and only if necessary)   |
|                         |   | Keep the text as simple as possible: <ol style="list-style-type: none"> <li>1. Short sentences</li> <li>2. Easy language</li> <li>3. Provide clear examples</li> </ol>   |
|                         | Using a neutral language to promote the inclusivity                                     | Use neutral pronouns instead of gender-based ones to refer to undefined persons (the examples could change based on the language): <ol style="list-style-type: none"> <li>1. 'They' instead of 'he'/'she'</li> <li>2. 'Mx' instead of 'Mr', 'Mrs' or 'Miss'</li> </ol> <p>Avoid masculine/feminine names/adjectives for undefined persons, by reformulating the sentence if necessary (the examples could change based on the language):</p> <ol style="list-style-type: none"> <li>1. 'Medical staff' instead of 'doctor'</li> <li>2. 'Fire department' instead of 'Fireman'</li> </ol> |
| <b>Digital channels</b> | Making the architecture of the digital tools adequate and help users in the interaction | <ol style="list-style-type: none"> <li>1. Ensure the keyboard navigation allowing users to use TAB key to reach the different focal points</li> <li>2. Do not use the reCAPTCHA, because sometimes it is based on graphic images only (If it necessary, it has to included reCAPTCHA with audio and images)</li> <li>3. Ensure the navigation from both desktop and mobile</li> </ol>  |
|                         | Making contents and functionalities adequate at the scope of the users                  | Involve the potential users of a digital platform to identify expected features (e.g., involving them in co-design sessions to define contents and functionalities)  |

To synthetize, some actions are suggested to be taken by all the partners. Partners are also asked to provide this information in the Dissemination Exploitation and Communication Activity Report:

- Multi-language posts: when you create or share LINKS posts or materials, try to publish it both in English and in your local language using, if relevant, a not technical language. If linguistic minorities are present in your area of study, try to provide posts also in their language.
- Age-friendly language: Try to provide posts that also use a child-friendly language and that are targeted for them.
- Targeted communication: Identify who are the most relevant stakeholders in your area of study and provide targeted communication for them.

- Communication for vulnerable people: if you know vulnerable groups are present in your study area who have not access to traditional communication systems, try to provide them information adopting their channel of communication.
- Reporting: Report the actions carried out respecting these rules in the DEC – Dissemination Exploitation and Communication Activity Report. Point them towards the 'Pocket Guidelines for Accessibility in Dissemination' for further details.

## ANNEX II: SOCIAL MEDIA AND CROWDSOURCING TECHNOLOGIES LIBRARY EXPLOITATION – EXAMPLE FROM HORIZON RESULTS BOOSTER SERVICE

This Annex presents an example of the final output of the Exploitation strategy for each LINKS result, which is elaborated on the basis of the materials provided by Horizon Results Booster. Being this work still under development, in this deliverable, an example (applied to the SMCS Technology Library result) is presented. The strategy consists in five tables, which are:

- Exploitation Intentions Summary Table, an overview of the main information related to the result exploitation
- Characterisation Table, which summarizes the main features of the result
- Risks Assessment and Priority Map, which allows to identify the risks associated to the result
- Use Option Table, which summarizes how the result will be further exploited
- Exploitation Roadmap, which shows the planning activities to be performed after the end of the project

**Table 33: Exploitation Intentions Summary Table – SMCS Technologies Library**

| Partner name | Key Exploitable Result (KER) | Your interest (exploitation intention of this KER, intended market/customers)  | Your organization contribution to the generation of this KER (what was/is/will be your input?)                           | Role of each organisation with regards to the KER and according to the Grant and Consortium Agreement |
|--------------|------------------------------|--|--|---|
| SIC          | SMCS Technologies Library    | Provide target audiences with a structured information overview of SMCS technologies to support their choosing and usage of these technologies. The SMCS Technologies Library is freely available in the LINKS Community Center. | The KER is available in the LINKS Community Center. The next steps are refinement, further development and exploitation. | We could list past and future workshops, presentation and conferences.                                |

**Table 34: Characterisation Table – SMCS Technologies Library**

| KER name | Input from the Beneficiary |
|----------|----------------------------|
|----------|----------------------------|

|  |   |
|--|---|
| <b>Problem</b>   | <p>Since the beginning of this millennium, there has been an increasing use of social media and crowdsourcing (SMCS) technologies in disaster situations. Disaster management organizations and corresponding research are increasingly working on ways of integrating SMCS into the processes of crisis management. One of the major challenges to solve is the overwhelming number of existing technologies on the market and their heterogeneous application and functional scope. Embedded in a rapidly changing technological landscape with an increasing diversity of stakeholders in disaster situations, it is impossible as a disaster management organization to gather enough information about technologies to be able to compare them and select a suitable one.</p>  |
| <b>Alternative solution</b>                                    | <p>From the findings of the interviews, survey and workshops, we know that the disaster management organizations have not been able to solve the problem satisfactorily in the field of SMCS in disaster management so far. There is no really comparable solution on the market that focuses on SMCS technologies in disaster management. Nearly alternative solutions could be:</p> <ul style="list-style-type: none"> <li>• The H2020-project ENGAGE is developing a catalogue of solutions, which will provide different kind of solutions for the interactions between civil society and first responders. The type of solution is much broader than our approach and also includes for examples guidelines, alert systems and websites. It also does not contain data about social media technologies.</li> <li>• CMINE provides a portfolio of solutions, with detailed documentation on the solutions and partly evaluated during the trials testing from DRIVER+. The catalogue supports the sharing of user experiences, which should ease the successful implementation by other practitioners. Some solutions also dealing with crowdsourcing solutions, especially managing data from the crowd. Again, this catalogue of solution does not contain data about social media technologies.</li> <li>• There are also some commercial collections and comparisons of social media analysis too. These do not have a focus on disaster management.</li> </ul> |
| <b>Unique Selling Point USP - Unique Value Proposition UVP</b> | <p>As highlighted earlier in the alternative solution section, the SMCS Technologies Library's UVP therefore added value is that:</p> <ul style="list-style-type: none"> <li>• it focusses on SMCS Technologies in disaster management</li> <li>• it is planned to be kept up to date with the help of an active community and provides a basis for discussion about the technologies</li> <li>• the knowledge about the technologies can be combined with other libraries to better understand the application of SMCS technologies in disaster management.</li> </ul>   |
| <b>Description</b>   | <p>A library that structures and presents information about existing SMCS technologies to grasp the overwhelming market and to guide the selection and application of these technologies. It can be used to be able to get a better understanding of the market, better select and apply suitable SMCS technologies according to their needs with the aim to integrate the information gained from SMCS technologies into decision-making processes.</p> <ul style="list-style-type: none"> <li>• Practitioners recognize more likely the potentials and benefits of technologies. Practitioners should be able to get a better understanding of the market and therefore better select and apply suitable SMCS technologies according to their needs. Practitioners</li> </ul>   |

|                                  |  |
|----------------------------------|--|
|                                  | <p>can further make use of the knowledge provided, which contains core information and context about social media and crowdsourcing technologies</p> <ul style="list-style-type: none"> <li>• by using a suitable technology, policy makers can integrate the information gained from SMCS technologies into decision-making processes</li> <li>• The SMCS Technologies Library is providing a unique, up-to-date overview about the overwhelming market. Furthermore, a scientific description schema will be provided, which can be also used by developers and adapted</li> <li>• Local communities can learn and apply crowdsourcing solutions in a disaster</li> <li>• Businesses see increased sales of technologies suitable for usage of SMCS during disasters and improve their technologies based on the needs of the community</li> <li>• SMCS Technologies Library could also contain technologies, which can support the work of disseminators</li> </ul> <p>The SMCS Technologies Library is already available at the LINKS Community Center in English. It is designed as a filter-based library and consists of three components:</p> <ul style="list-style-type: none"> <li>• a market overview (current collection of and permanent search for new technologies),</li> <li>• a classification schema (set of categories to describe and compare the technologies),</li> <li>• and the assessment of the technologies.</li> </ul> <p>The content can be specified by selecting the filters according to the needs. Updates will be constantly made by the community</p> |
| <b>"Market" – Target market</b>  | <p>The target market consists of primarily of disaster management organisations who already use or interested in the usage of SMCS technologies. Also policy makers, researchers and business entities are targeted with the SMCS Technologies Library. It competes in the market of crisis technologies/crisis informatics and commercial social media analysis technologies.</p>   |
| <b>"Market" – Early Adopters</b> | <p>The SMCS Technologies Library were already presented to and discussed with many potential early adopters. These are e.g. external experts from the LINKS Advisory Committee, local practitioner organisations, VOST, EENA, DPPI SEE, German Society for the Promotion of Social Media and Technology in Civil Protection (DGSMTech e.V.) or special forces of the police.</p>   |
| <b>"Market" - Competitors</b>    | <p>The ENGAGE knowledge platform and CMINE catalogue of solutions are quite similar in terms of organizational background (e.g. developed in a research project, free of charge use model) but in terms of content they have a broader approach and accordingly the content listed can vary a lot. The strength of the SMCS Technologies Library is the clear focus on SMCS technologies in disaster management. As an advantage over commercial collections of social media analysis tools is the focus on disaster management.</p>   |
| <b>Go to Market – Use model</b>  | <p>The SMCS Technologies Library is designed as a filter-based structured collection of information and is already publicly available in the LINKS Community Center. It is free of charge and without subscription. Furthermore, the following uses are foreseen and for some already started:</p> <ul style="list-style-type: none"> <li>• Integration with external platforms (e.g. CMINE – Crisis Management Innovation Network Europe, DRMKC- Disaster Risk Management Knowledge Center, DGECHO Knowledge Network, PreventionWeb)</li> </ul>   |

|                                      |   |
|--------------------------------------|---|
|                                      | <ul style="list-style-type: none"> <li>• Cooperation with services/platforms provided by other projects (e.g. ENGAGE knowledge platform, RiskPACC)</li> <li>• Trainings and workshops (LAC, LCW)</li> <li>• Presentation to existing networks and associations (FEU, GDPC, EFA, DPPI SEE, vfdb, VdF, AGBF, DGSMTech)</li> <li>• Creation of the connection to the sales channels of the technology providers, becoming one of the communication channels for these technologies , leading to a referral-based revenue</li> <li>• Option to add new technologies and interact with the community</li> <li>• Support service for businesses for the identification of market potentials in specific fields</li> <li>• New funding opportunities at the EU level where to exploit the library</li> <li>• Creative Commons licenses (Attribution-NonCommercial-ShareAlike 3.0)</li> </ul> |
| <b>Go to Market - Timing</b>         | <p>Prototype is already available in the LINKS Community Center (<a href="https://links.communitycenter.eu/index.php/List_of_Disaster_Community_Technologies">https://links.communitycenter.eu/index.php/List_of_Disaster_Community_Technologies</a>)</p> <p>We are already recognized by the market, a concrete point of timing for market can not be defined, it is an ongoing process. The next steps are validation and evaluation with different groups of stakeholder and ongoing refinement of the product.</p>  |
| <b>Go to Market – IPR Background</b> | No background IPR.  |
| <b>Go to Market – IPR Foreground</b> | Conceptual model and visualisation of the Technologies Library.   |

**Table 35: Risk Assessment Map – SMCS Technologies Library**

|                                   | Social Media and Crowdsourcing Technology Library | Importance of the risk (1 low- 10 high) | Probability of risk happening (1 low - 10 high) | Risk Grade | Scope and type of potential intervention                         | Feasibility/Success of Intervention (1 low- 10 high) | Priority Level  |
|-----------------------------------|---|---|---|------------|--|--|-----------------|
| <b>Partnership Risk Factors</b>   |   |   |   |            |  |  |                 |
| 1                                 | Low contribution of the technology providers      | 5                                       | 4   | 20         | Demonstrate the benefits of a well-maintained technology profile | 9  | <b>Control.</b> |
| <b>Technological Risk Factors</b> |   |   |   |            |  |  |                 |

|   |  |   |   |    |  |    |          |  |
|---|--|---|---|----|--|----|----------|--|
|   |  |   |   |    | 0  |    |          |  |
| <b>Market Risk Factors</b>                    |  |   |   |    |  |    |          |  |
| 2   | Capture the timeliness of the market (new technologies and changing information about already included technologies) | 6 | 5 | 30 | Community engagement and contribution of the providers   | 7  | Control. |  |
| <b>IPR/Legal Risk Factors</b>                 |  |   |   |    |  |    |          |  |
| 3   | Copying the idea and competitive implementation  | 1 | 1 | 1  | Seek cooperation with the respective organisation/project  | 10 | Control. |  |
| <b>Financial/Management Risk Factors</b>      |  |   |   |    |  |    |          |  |
| 4   | Limited resources to fully implement and further develop the product   | 6 | 3 | 18 | <ul style="list-style-type: none"> <li>Follow up research projects</li> <li>Define an appropriate business plan</li> <li>Foresighted planning and community engagement as well as contribution from the providers</li> </ul> | 8  | Control. |  |
| 5   | No follow-up project proposal accepted   | 5 | 5 | 25 | <ul style="list-style-type: none"> <li>Keep making more follow-up proposals</li> </ul>   |    |          |  |
| <b>Environmental/Regulation/Safety risks:</b> |  |   |   |    |  |    |          |  |
| 6   | Lack of understanding of the potentials of technologies by disaster management organisations                         | 5 | 4 | 20 | Carrying out convincing work within LINKS  | 10 | Control. |  |



Figure 4: Priority Map – SMCS Technologies Library



Table 36: Use Options Table – SMCS Technologies Library

| KER's Exploitation route (how the KER will be further exploited) |   |                                  |     |
|--|---|----------------------------------|-----|
| Selected route   |   | Implementing actor               | Yes |
| DIRECT USE   | Commercialisation: <i>deployment of a novel product/service (offered to the target markets)</i> | One partner <sup>1</sup>         |     |
|  |   | A group of partners <sup>2</sup> | X   |
|  | Contract research ( <i>new contracts signed by the research group with external clients</i> )   | A partner                        |     |
|  |   | A group of partners              |     |
|  | A new research project ( <i>application to public funded research programmes</i> )              | A partner                        |     |
|  |   | A group of partners              | X   |
|  | Implementation of a new university course ( <i>Note that a training course is a service</i> )   | A partner                        |     |
|  |   | A group of partners              |     |
| A new partnership  |   |                                  |     |
| INDIRECT USE   | Assignment of the IPR   | A partner                        | X   |
|  |   | A group of partners              |     |
|  | Licensing of the IPR  | A partner                        |     |
|  |   | A group of partners              |     |
|  | Development of a new legislation/standard   | A partner                        |     |
|  |   | A group of partners              |     |
|  | Spin- off   | A partner                        |     |
|  |   | A group of partners              |     |
| By assignment  |   |                                  |     |
|  | By licensing  |                                  |     |
|  | Other ( <i>please describe</i> )  |                                  |     |

Table 37: Exploitation Roadmap – SMCS Technologies Library

| Exploitation roadmap |   |
|----------------------|---|
| <b>Actions</b>       | <p><i>Actions planned to be executed 3-6 months after the end of the project:</i></p> <ul style="list-style-type: none"> <li>Continue to fill the SMCS Technologies Library with information and connect it with the other SMCS Libraries.</li> </ul> |

|                                  |   |
|----------------------------------|---|
|                                  | <ul style="list-style-type: none"> <li>• Moderated adjustments to the library structure.</li> <li>• Continuing building of an active community.</li> <li>• Scouting of additional funding opportunities to promote the SMCS Technologies Library</li> </ul>   |
| <b>Roles</b>                     | <ul style="list-style-type: none"> <li>• Technology providers (businesses) will verify and contribute to the entries regarding their technology. Also they are capable of evaluate the categories in detail. This could also be used to establish commercial relationships with the technology providers, i.e. by advertising them in exchange for a fee</li> <li>• LINKS Community members will contribute to the information needed to fill the libraries</li> <li>• LINKS consortium partners will promote and exploit the product</li> </ul>  |
| <b>Financials Costs</b>          | Costs of maintaining and administering, costs of scouting, costs of writing proposal, costs of implementation of the materials of dissemination.  |
| <b>Revenues</b>                  | Not applicable at this point.   |
| <b>Other sources of coverage</b> | Not applicable at this point.   |
| <b>Impact in 3-year time</b>     | <p><i>Describe impact in terms of growth/benefits for the society.</i></p> <p>In the short and medium term after the end of the project, the expected positive impact on the DRM community will continue to be to provide an up-to date and structured overview about the overwhelming market of SMCS technologies. Especially disaster management organisations could recognize more likely the potentials and benefits of using SMCS technologies in disaster situation and will be able to get a better understanding of the market and therefore better select a suitable SMCS technology.</p> <p>After the end of the project it will be also important to consider whether the SMCS Technologies Library can be integrated into an external platform (e.g. CMINE, DRMKC, DGECHO, PreventionWeb) or further developed into a follow up EU project.</p> |