LINKS

Strengthening links between technologies and society
for European disaster resilience

LINKS: PROJECT OVERVIEW

Facts and Figures

- Grant no. 883490
- Start on 1 June 2020
- Duration of 42 months
- 15 Partners from 6 European countries
- 2 Associated Partners (Bosnia and Herzegovina, Japan)
- 10 WPs
- 59 Deliverables
- Maximum grant amount of 5 151 777.50 €

Find out more: links-project.eu

LINKS VISION

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 social media and crowdsourcing (SMCS) in disasters. This is done across three complementary knowledge domains:

1) Disaster Risk Perception and Vulnerability (DRVP)
2) Disaster Management Processes (DMP)
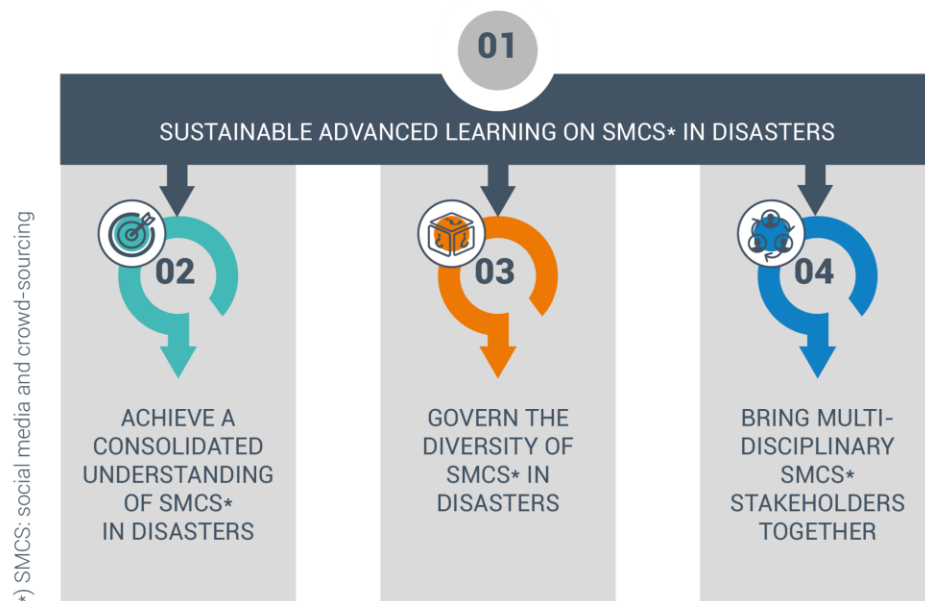3) Disaster Community Technologies (DCT)

From this knowledge base, LINKS will develop methods, tools and guidelines (LINKS Framework), informed through interactions with relevant stakeholders (LINKS Community) online (LINKS Community Center) and in person (LINKS Community Workshops).

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LINKS OBJECTIVES

In LINKS, **resilience** is a normative and positive quality of a system, institution or individual that increases the capacity to manage disaster risk. LINKS contributes to strengthening resilience by enabling **sustainable advanced learning** on uses of **social media and crowdsourcing (SMCS)** in disasters.

We define **Sustainable Advanced Learning** as maintainable and evolving collection of knowledge produced for and by relevant stakeholders.

This entails a cognitive dimension (the **capability to gain in-depth knowledge** of e.g. crises and crisis management) and a social dimension (the **ability to implement that knowledge** into new practices).

01

SUSTAINABLE ADVANCED LEARNING ON SMCS* IN DISASTERS

*) SMCS: social media and crowd-sourcing

02

ACHIEVE A CONSOLIDATED UNDERSTANDING OF SMCS* IN DISASTERS

03

GOVERN THE DIVERSITY OF SMCS* IN DISASTERS

04

BRING MULTI-DISCIPLINARY SMCS* STAKEHOLDERS TOGETHER

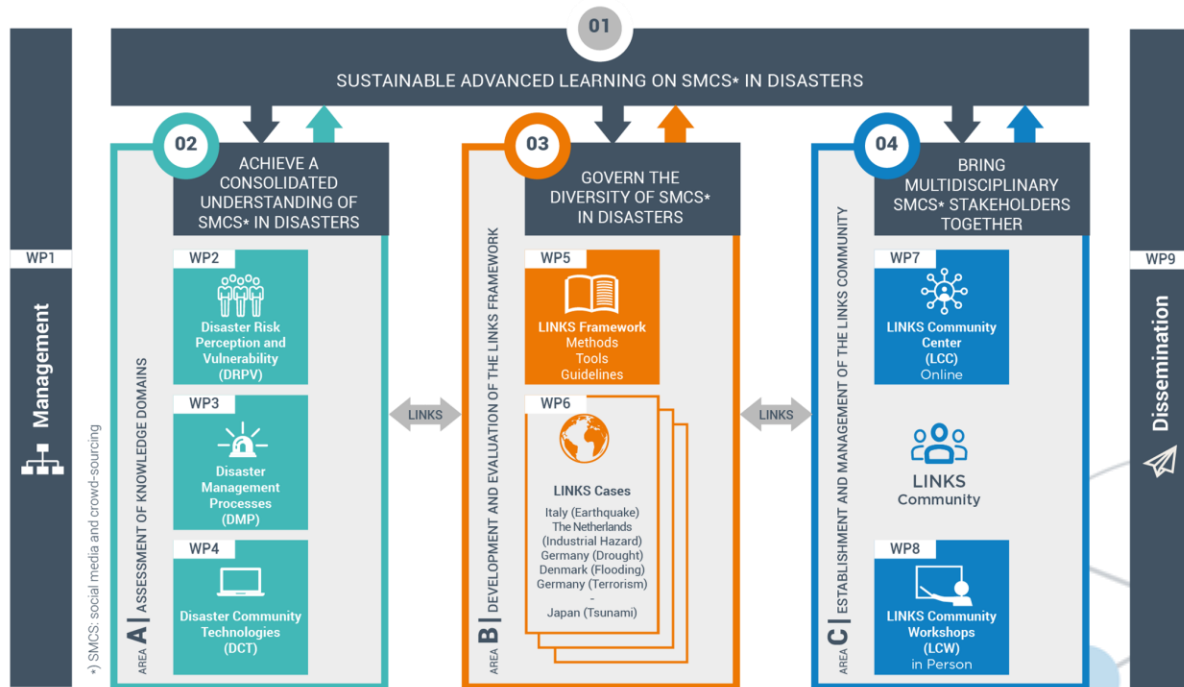**Find out more: links-project.eu**

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LINKS OBJECTIVES AND WP OVERVIEW

O1. Sustainable Advanced Learning

O2. Consolidated understanding of SMCS across the knowledge domains (Knowledge Bases)
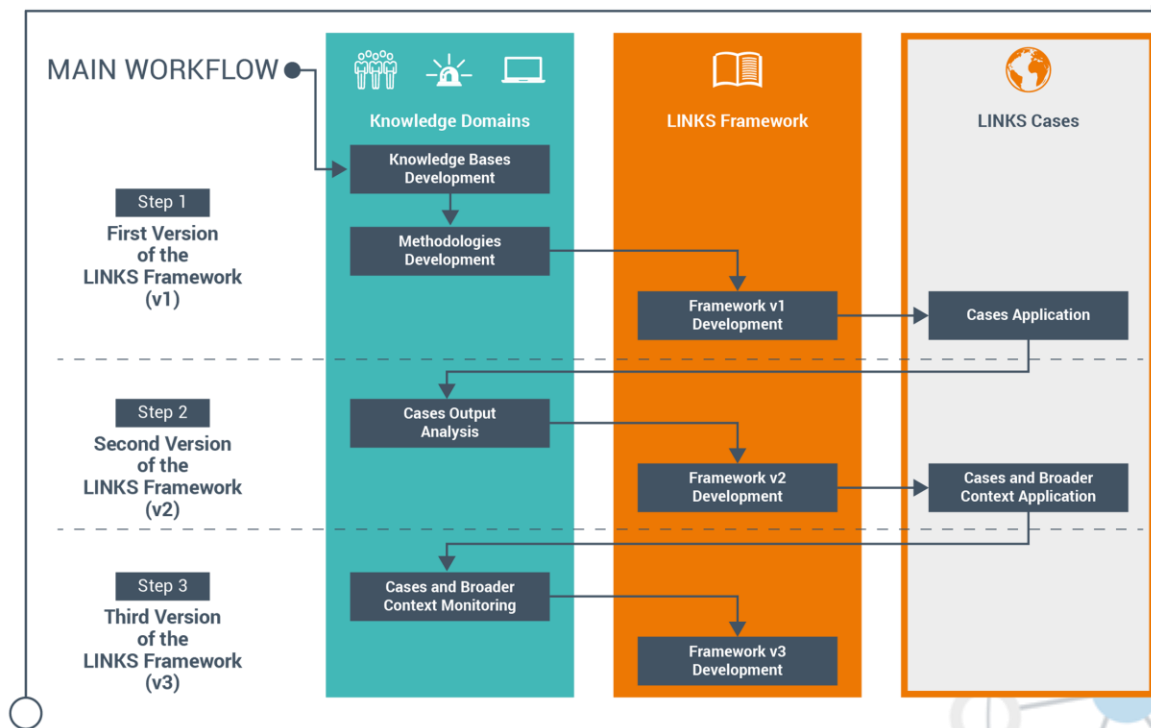
O3. Governing the diversity of the knowledge (LINKS Framework)

O4. Stakeholders accessing, using and contributing to the knowledge (LCC and Community)

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LINKS State of the Activities

Step 1: Combining conceptual and practical knowledge for KB and partners for methodologies, Framework, and cases.

MAIN WORKFLOW

Knowledge Domains

LINKS Framework

LINKS Cases

Knowledge Bases Development

Step 1
First Version of the LINKS Framework (v1)

Methodologies Development

Framework v1 Development

Cases Application

Step 2
Second Version of the LINKS Framework (v2)

Cases Output Analysis

Framework v2 Development

Cases and Broader Context Application

Step 3
Third Version of the LINKS Framework (v3)

Cases and Broader Context Monitoring

Framework v3 Development

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LINKS Knowledge Bases: *Preliminary Results from Desk Studies*

Disaster Vulnerability (DV) (D2.1)
We identified four main properties which explain vulnerability as a fluid concept: diversity, accessibility, connectivity and mobility. These concepts are useful to understand the dynamicity of vulnerability in terms of the uses of SMCS in different phases of the DMC, and the interdependencies between vulnerability and resilience.

Disaster Risk Perception (DRP) (D2.2)
DRP in relation to SMCS, can be viewed through a multi-level framework that evaluates individual and environment factors including: 'Background' factors (social values, cultural context, spatial context), 'Interpersonal' factors (knowledge, information flows, awareness and trust) and 'Individual' factors (psychometric factors, affects, emotions and experience).These factors are linked to those identified in the study on vulnerability and are useful to understand its dynamicity of variables which impact both vulnerability and resilience.

Disaster Management Processes (DMP) (D3.1)
In the context of disaster governance, resilience is characterized by inclusive decision-making processes, accessible credible information, sensitivity towards vulnerabilities (e.g rights and entitlement) and constant learning and change across the four phases of the DMC. We found a need by institutions to address all of these dimensions for increased resilience through the use of SMCS in DMP.

Disaster Community Technologies (DCT) (D4.1)
There remains an unknown potential for the state of SMCS on resilience from a technical perspective. A wide range of different technologies exists worldwide with a huge range of functionalities (SM networks but also tools to gather, filter, analyse and visualize data from SMCS), yet they are used for many different purposes of many different organisations and there is a lack of transparency between the countries, and even between DM organizations within a country.
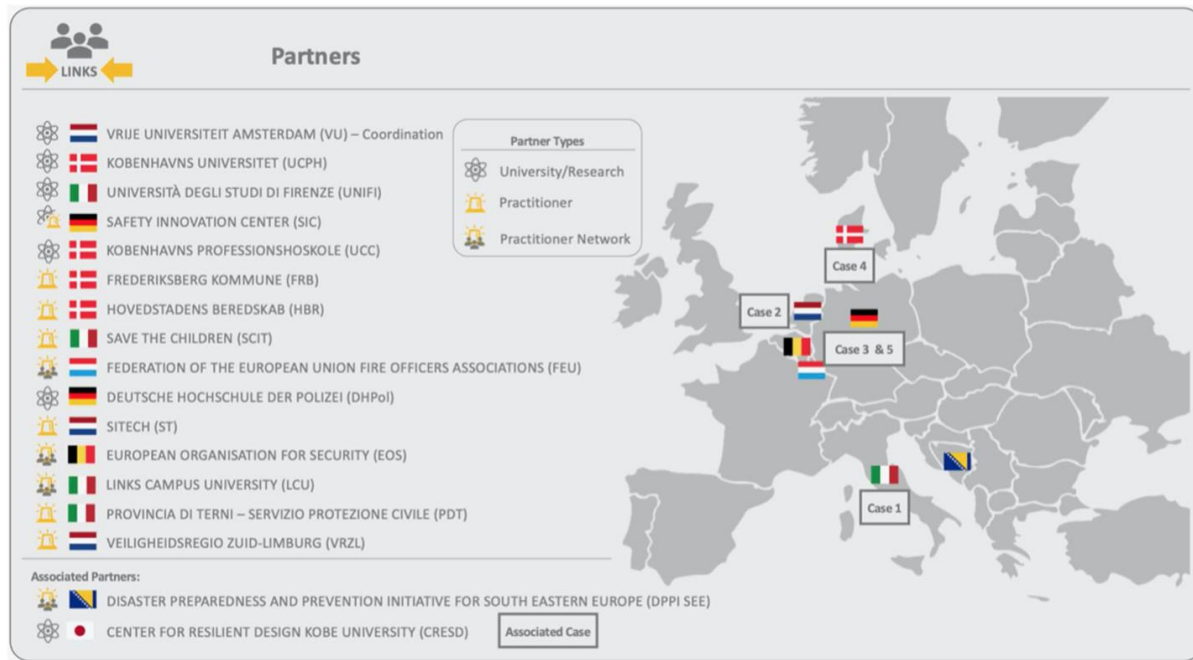
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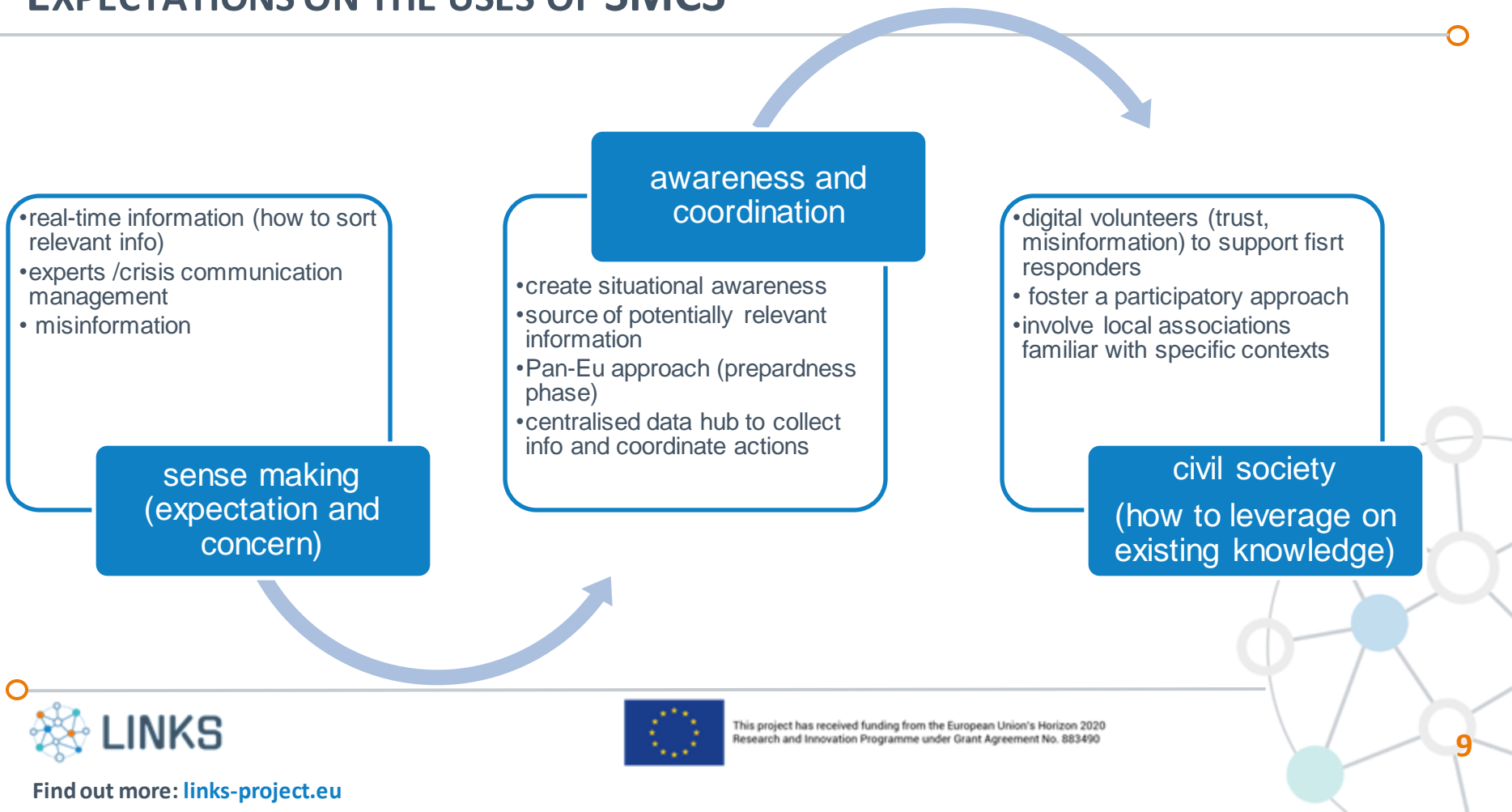
LINKS PARTNERS: *PRACTITIONER NEEDS AND GAPS*

Practitioner level:

- Practitioner task force (PTF) meetings and workshops.

- Contextualize resilience by collecting experiences, expectations, needs, gaps

- Managing contexts (diversity) and similarities

- Themes: managing misinformation, engaging citizens, inclusiveness of the most vulnerable, risk communication

Partners

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🏳	🇳🇱	VRIJE UNIVERSITEIT AMSTERDAM (VU) – Coordination
🏳	🇩🇰	KOBENHAVNS UNIVERSITET (UCPH)
🏳	🇮🇹	UNIVERSITÀ DEGLI STUDI DI FIRENZE (UNIFI)
🏳	🇩🇪	SAFETY INNOVATION CENTER (SIC)
🏳	🇩🇰	KOBENHAVNS PROFESSIONSHOSKOLE (UCC)
🔔	🇩🇰	FREDERIKSBERG KOMMUNE (FRB)
🔔	🇩🇰	HOVEDSTADENS BEREDSKAB (HBR)
🔔	🇮🇹	SAVE THE CHILDREN (SCIT)
🔔	🇪🇺	FEDERATION OF THE EUROPEAN UNION FIRE OFFICERS ASSOCIATIONS (FEU)
🏳	🇩🇪	DEUTSCHE HOCHSCHULE DER POLIZEI (DHPol)
🔔	🇳🇱	SITECH (ST)
🔔	🇧🇪	EUROPEAN ORGANISATION FOR SECURITY (EOS)
🔔	🇮🇹	LINKS CAMPUS UNIVERSITY (LCU)
🔔	🇮🇹	PROVINCIA DI TERNI – SERVIZIO PROTEZIONE CIVILE (PDT)
🔔	🇳🇱	VEILIGHEIDSREGIO ZUID-LIMBURG (VRZL)

Partner Types
- 🏳 University/Research
- 🔔 Practitioner
- 🔔 Practitioner Network

Associated Partners:
- 🇧🇦 DISASTER PREPAREDNESS AND PREVENTION INITIATIVE FOR SOUTH EASTERN EUROPE (DPPI SEE)
- 🇯🇵 CENTER FOR RESILIENT DESIGN KOBE UNIVERSITY (CRESD) **Associated Case**

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awareness and coordination

- real-time information (how to sort relevant info)
- experts /crisis communication management
- misinformation

sense making (expectation and concern)

- create situational awareness
- source of potentially relevant information
- Pan-Eu approach (prepardness phase)
- centralised data hub to collect info and coordinate actions

- digital volunteers (trust, misinformation) to support fisrt responders
- foster a participatory approach
- involve local associations familiar with specific contexts

civil society (how to leverage on existing knowledge)

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Create more inclusive/ resilient communities

Common themes

- inclusiveness
  - Trust (public authorities-citizens)
  - Involvement in communication/ decision-making processes
  - Integration of local knowledge in practices
  - Representatives of local communities
  - Activation and coordination
  - Vulnerable groups
- risk communication
  - Overall improvement
  - Raise risk awareness
  - Improve preparedness
- crisis communication
  - Overall improvement
  - Filtering information (fake news, rumors)
  - Effective use of SMCS (quantity and quality of info)
  - Local gatekeepers
  - Acting upon information

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LINKS CASES AND FRAMEWORK

Upcoming Research at Community level:

- Framework evaluation

- Engagement with citizens and other stakeholders

- LCW, focus groups, interviews, surveys

Case 1 - Italy

EARTHQUAKE

- Multi-Hazard Dynamics
- Mountain Areas
- Shrinking Communities
- Seismic Swarm

UNIFI | SCIT | PDT

Case 2 - The Netherlands

INDUSTRIAL HAZARD

- Chemical Spill
- Explosions
- Industrial Hazards
- Preparation of Citizens

VU | ST | VRZL

Case 3 - Germany

DROUGHT

- Large-Scale Area
- Water Shortage
- Forest Fires
- Climate Change
- Extreme Long Duration

SIC

Case 4 - Denmark

FLOODING

- Early Warnings and Forecasts
- Risk Communities
- Democratizing Data
- Climate Change Adaption

UCPH | FRB | HBR | HBR

Case 5 - Germany

TERRORISM

- Lack of Information
- Quality of Information
- Citizen Involvement
- Training

DHPol

Associated Case - Japan

TSUNAMI

- Low-Frequency
- Evacuation Routes
- Shelters
- Vulnerable Groups

CRESD

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LINKS OUTPUTS

Sustainable advanced learning is enabled through the main LINKS outputs:

Knowledge bases (KB): repositories of consolidated knowledge resulting from studies across the foundational knowledge domains of the project: Disaster Risk Perception and Vulnerability (DRPV), Disaster Management Processes (DMP), and Disaster Community Technologies (DCT).

Methodologies: unique methodological approaches regarding the KB and SMCS.

LINKS Framework: the translation of diverse knowledge from the KB into actionable learning materials (e.g. methods, tools, guidelines, etc.) for different stakeholders (e.g. practitioners, researchers and policy makers).

LINKS Community Center (LCC): the online interface for stakeholders within the LINKS Community to access and contribute knowledge to the Framework.

LINKS Community: multidisciplinary stakeholders from several countries, professions and schools of thought learning from, contributing to, and sustaining the project developments and outputs.

Challenge: How to measure the uptake and impact of learning and resilience at the levels of individuals, systems and institutions?

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TARGETED POLICY AREAS

LINKS aims to provide evidence-based advice and inputs to EU (and international) policy agendas for decision making and for the identification of gaps and needs in the areas of **Disaster Risk Management** and **Data Governance**. With considerations for relevant EU policy areas (e.g. DRR, Civil Protection, Security, Science and Policy, Telecommunication, Data Protection), LINKS addresses the following policy dimensions:

Disaster Risk Management
- Multi-level/networked governance
- Participation/inclusiveness
- Coordination
- Trust
- Institutional learning
- Focus on prevention and preparedness

Data Governance
- Multi-sectoral
- Information sharing and coordination
- Risk/Crisis communication (incl. tools/tech)
- Misinformation/disinformation
- Data protection/ethics

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LINKS: ROADMAP OVERVIEW

First 6 Months

- 12 (59) deliverables submitted
- KB foundations established
- DEC and community strategies
- Established a strong ethics basis
- 7 PTF meetings and 2 workshops
- First LAC meeting
- 5 external events
- DRS01 collaboration (e.g. glossary)

Current 6 Months

- Focus on development of methodologies, Framework (LM), LCC Design, Community
- Start of external research: LCWs, workshops, focus groups, surveys
- External engagement activities (REA/DGs and CERIS, DRS01/CMINE, LINKS Conference, deliverables/publications)
- M12 Project Review (June 2021)

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PROJECT COORDINATOR TEAM

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