LODE's tools

The information system that we have in mind does not duplicate already existing tools, rather it will properly take into account the pros and cons of existing ones. By co-developing it we aim at rationalizing what stakeholders already do in the aftermath of a disaster and to provide more and better opportunities to capitalize on the effort of data collection beyond compensation purposes. For this reason, the information system will be designed to coordinate as much as possible efforts in the initial phase of data collection and successive phase of querying and using the data. Given the complexity of such task, an iterative and incremental method of development will be adopted, using as a test bed the showcases of the action. Interaction and interoperability with the Risk Data Hub under development at the DRMKC at the JRC of the EU Commission will be constantly pursued. Results of LODE will be completely open access and apt to further customization and development.

To be informed and updated about **LODE**'s activities access:

www.lodeproject.polimi.it

LODE PROJECT

LODE is a two years project (2019-2021) funded by the **European Commission** - Directorate General for European Civil protection and Humanitarian Aid Operations (DG-ECHO) under the program: **Union Civil Protection Mechanism Prevention** and **Preparedness Projects in Civil Protection and Marine Pollution 2018-2020**.

LODE aspires to define with stakeholders what are enhanced data collection tools and procedures and how the knowledge that can be extracted from such data can serve a number of useful applications to support different policies and strategies for disaster risk reduction and climate change adaptation.

Ten partners are committed to the project from seven Countries, including France, Spain, Finland, Greece, Serbia, Portugal, and Italy and they represent both scientific research centres and universities as well as public administrations that are active in different fields of risk management and mitigation.

Loss Data Enhancement
for DRR & CCA management

## Why do we need your involvement as a stakeholders?

LODE is creating a network of stakeholders in the project partners' countries but also from other regions and countries of Europe as well as from international organisations, with the aim of co-developing together an in depth understanding of what is considered damage in different societal and territorial sectors and to discuss needs, both technical and procedural.

We are looking for stakeholders who are active along the entire "disaster chain" from prevention to response and recovery, in different roles, at different scales and in different sectors.
We wish to work closely with them to explore existing best practices as well as challenges and gaps in post-disaster damage data collection and management, to facilitate sharing experience.
Some of LODE's partners are already active stakeholders in the field of disaster risk management: two of them are regional civil protection authorities (the Umbria Region Civil Protection and the Catalunya Civil Protection), the Finnish Meteorological Institute, the Greek Earthquake Planning and Protection Organisation, the Serbian Institute of Forestry. Each of LODE's partner will introduce to the network other stakeholders with different expertise, responsibilities, dealing with different sectors so as to cover all relevant territorial and urban systems, including residential, economic activities, public services, critical infrastructures and lifelines, cultural heritage and environmental goods.

We ask stakeholders of the network to meet with us and participate to a limited number of meetings, seminars and to two international workshops. We would like them to help us in the process of understanding damage, identifying key indicators and variables that permit to represent damage in different ways (monetary and as a physical or functional
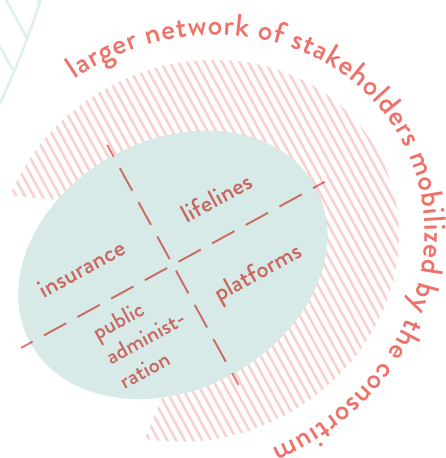
disruption). We wish to explore with them the connections between direct and indirect damage, between damage to different systems and to test and/or assess the usability of the information system that we will construct during the project.

LODE's showcases and operational approach

The baseline of LODE is a set of ten showcases in all countries of the project's partners where damage data collection, storage will follow the methodology and the approach that we are developing. In each case one or two types of applications will be carried out in order to show in practice the added value of enhanced damage and loss data and the utilities provided by the information system the we will develop.

What do we mean by applications? First we will use the data from the showcases to fill the databases under construction in order to store and organize the data that will be useful for different types of analyses and queries. How can such applications be useful for you as a stakeholder working in a lifeline managing company or in a public administration? In the following ways:

a. Post disaster damage data can be used for validation purposes comparing them with the results of models that have been run to evaluate scenarios similar to the one that actually occurred.

b. Post disaster data can be used to dig into the causes of the damage, to understand what factors have been more important, related to the hazard(s) and/or to the weaknesses and vulnerability of exposed systems and assets. Such information can be very valuable to inform recovery and reconstruction.

c. Post disaster damage data can inform also cost benefit and multicriteria analysis to evaluate alternative risk mitigation measures, both structural and non structural.

d. A very practical use of loss and damage data is to program post disaster needs and resources to be committed for disaster recovery and compensation. In this respect an enhanced data management and information system can facilitate the production of multiple reports and documents that will be required by government, authorities or insurance to decide about compensation.

e. A well designed tool allows for different types of outputs and representation of damage, including thematic mapping, showing what areas have been more affected and the distribution of damage to multiple assets and systems, particularly relevant for spatial and urban planners.

larger network of stakeholders mobilized by the consortium

lifelines

insurance

platforms

public administration