

# The RISSC Project

## Towards a better management of cavity-related ground movements in Wallonia and Hauts-de-France Regions

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### Two regions, similar geologic context and industrial history

Similar underground objects (quarries, mines, karst, cavities) that are responsible for exposure to ground movement risks

The RISSC Project aims to help stakeholders to improve risk management and prevention on both territories.

How can it achieve its goal?

Through three technical work actions

### A cross-border cooperation



**RISK ASSESSMENT** 



LOCAL SOLUTIONS FOR MONITORING AND RISK REDUCTION



**TECHNICAL SUPPORT TO LOCAL ACTORS** 



Through this work module, various monitoring methods and securization solutions are assessed namely through sites investigations or stakeholders feedback. Synthetic documents will be produced from these observations.

#### · Monitoring methods evaluation

Test sites are being monitored with different methods:

- Monitoring campaigns





Photogrammetry model of a pilar (La Malogne quarry, Mons, BE)

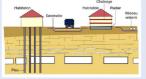
3D scan (La Malogne quarry, Mons, BE) - Permanent monitoring

Different types of measurement : Geotechnical, acoustic, groundwater-level, temperature,  $CO_2$ ,  $O_2$  concentrations



#### · Solutions analysis

Various securization methods can be used in the different contexts of the two studied regions





Inventory → Common typology → Characterization

#### **RISK ASSESSMENT**

Physical data collection and Hazard mapping and methodology modelling examination







Past accidents analysis

cal simulation of vertical displacem

General scheme of the accidentology analysis approach (in progress)

The main objective of this action is to create an effective cross-border interaction between public services, local authorities and actors, experts and population. Through the lessons learned from the various technical works driven by the RISSC project, useful tools ought to be created (geo-portal, methodology guides, practical information, ...)

Those tools will support the work of all the stakeholders implied in the cavity risk management. The latter will be included in a cross-border network created on the initiative of the RISSC project.







est practice guides, information brochu etc. will be edited as support tools for stakeholders (work in progress)

Passive methods : securing the surface or subsurface infrastructures