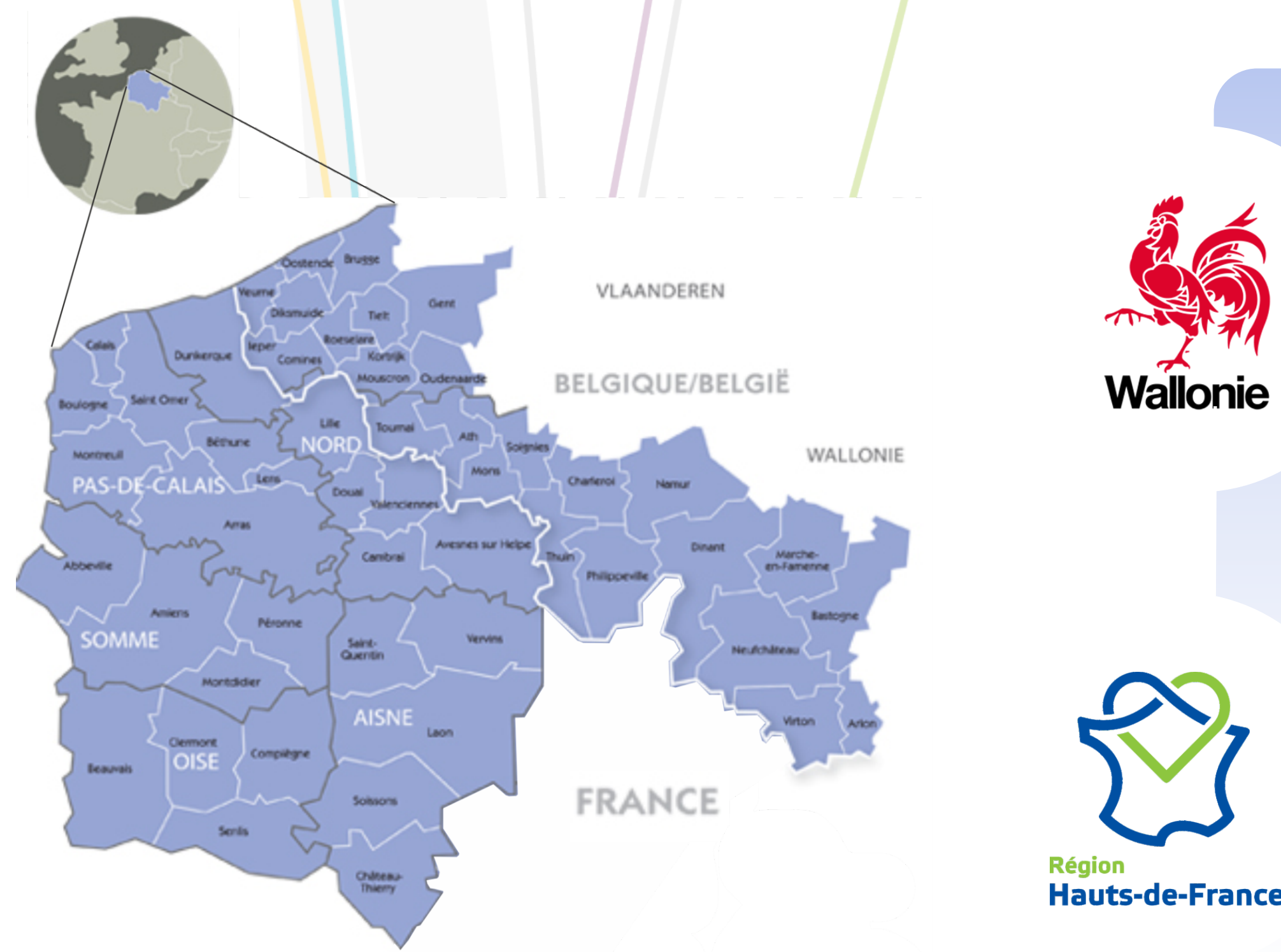


The RISSC Project

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



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 a better and more coordinate risk management on both territories.

How can it achieve its goal?

Through three technical work actions

1 RISK ASSESSMENT

2 LOCAL SOLUTIONS FOR MONITORING AND RISK REDUCTION

3 TECHNICAL SUPPORT TO LOCAL ACTORS

A cross-border cooperation

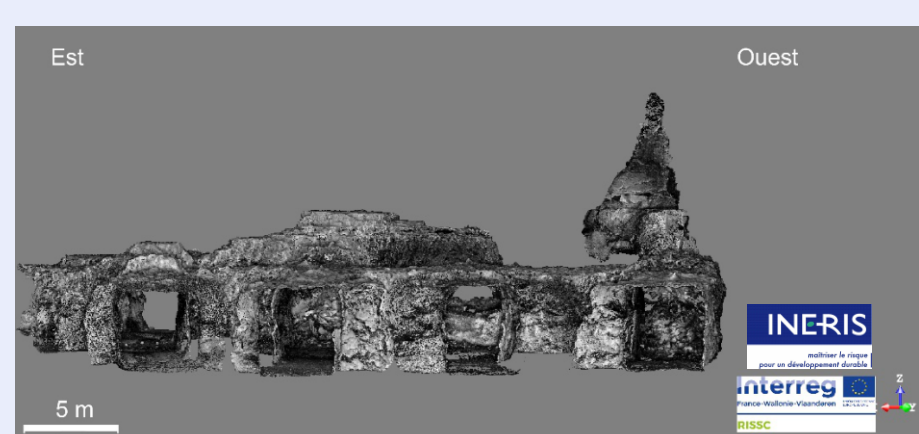


Through this work module, various monitoring methods are evaluated through sites investigations and securization solutions are assessed. synthesis documents will be produced from these evaluations.

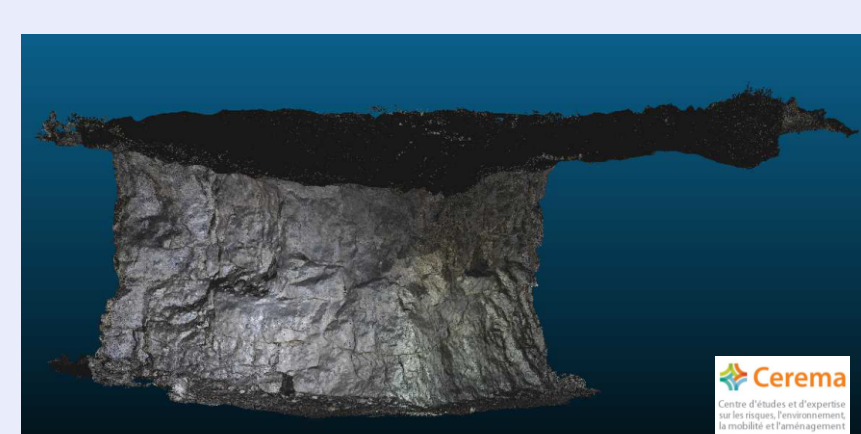
• Monitoring methods evaluation

Test sites are being monitored with different methods:

- Monitoring campaigns



3D scan (La Malogne quarry, Mons, BE)



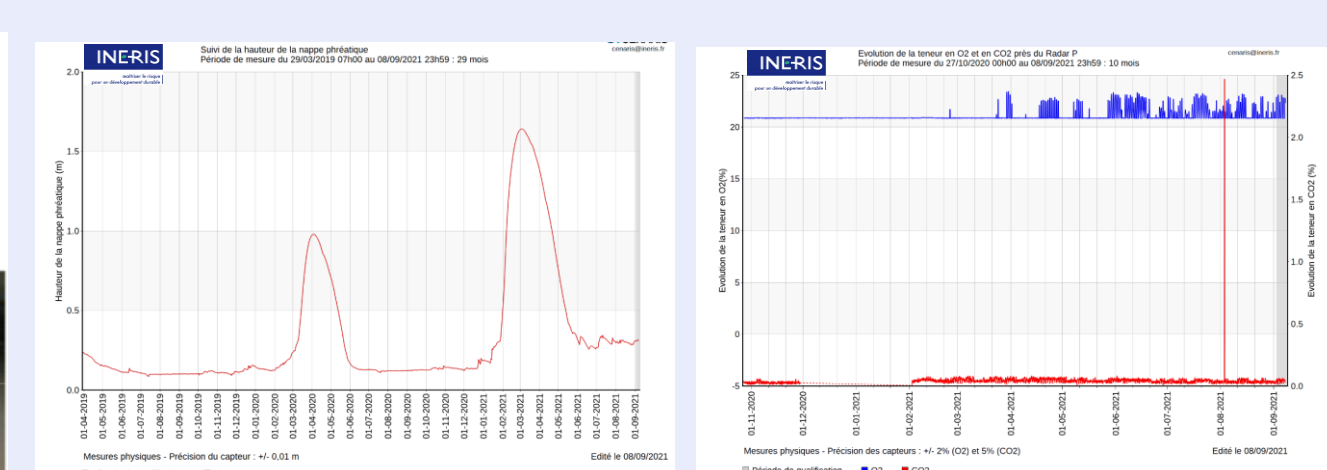
Photogrammetry model of a pillar (La Malogne quarry, Mons, BE)

- Permanent monitoring

Different types of measurement : Geotechnical, acoustic, groundwater-level, temperature, CO₂, O₂ concentrations



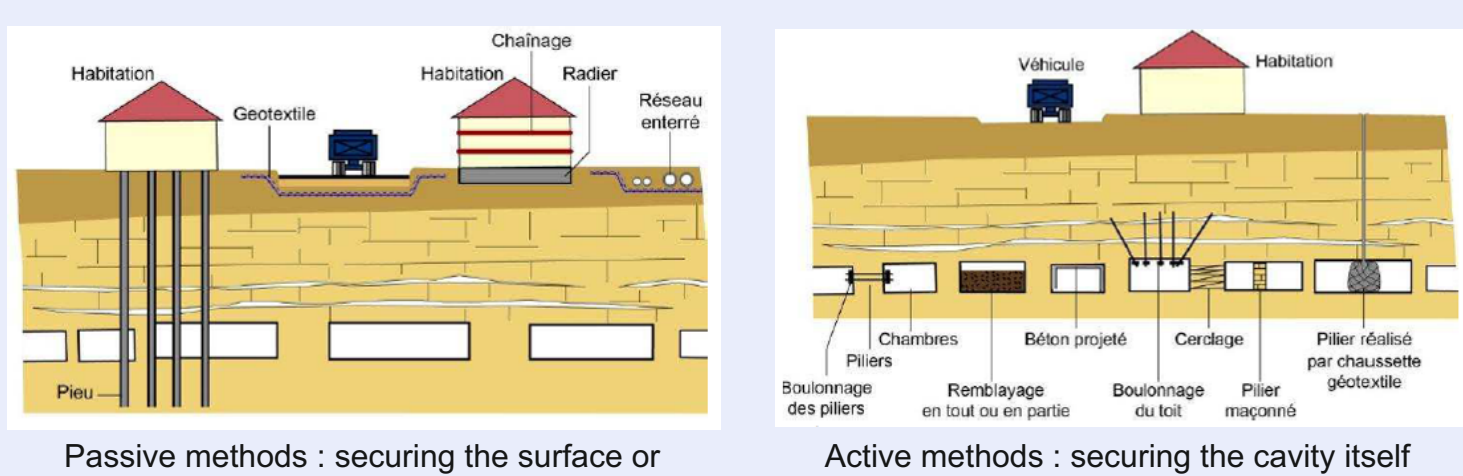
Radar and microphone as permanent monitoring devices in the Hellemmes quarry (FR)



Water-level and CO₂, O₂ monitoring in the Hellemmes quarry (FR) - e-cenaris platform

• Solutions analysis

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

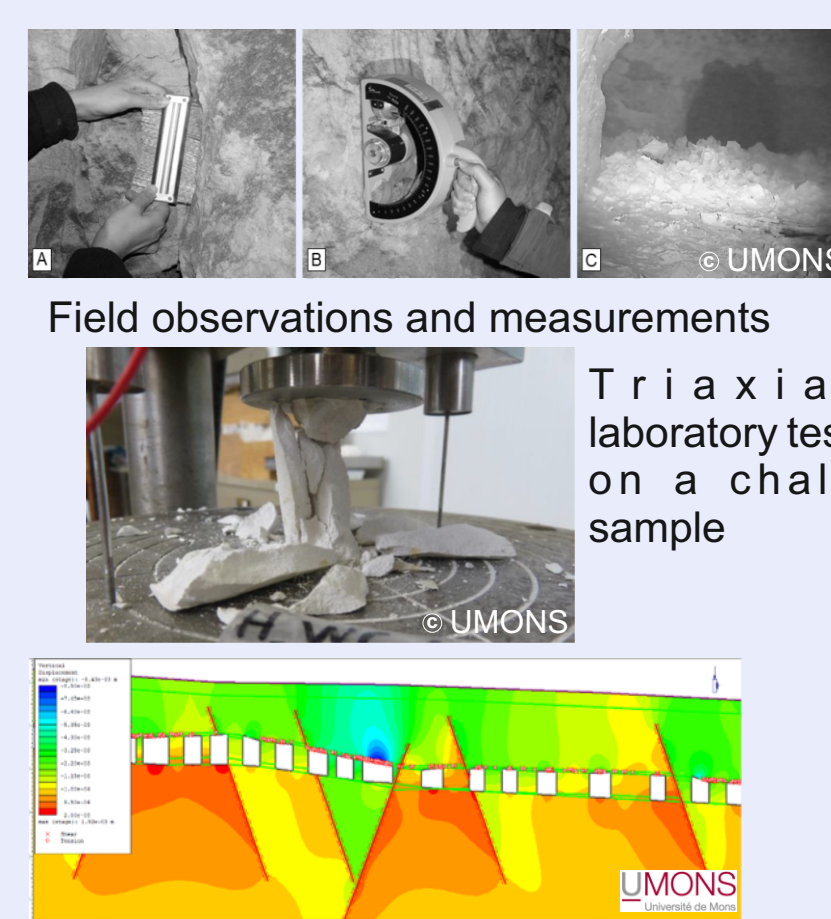


1

Inventory → Common typology → Characterization

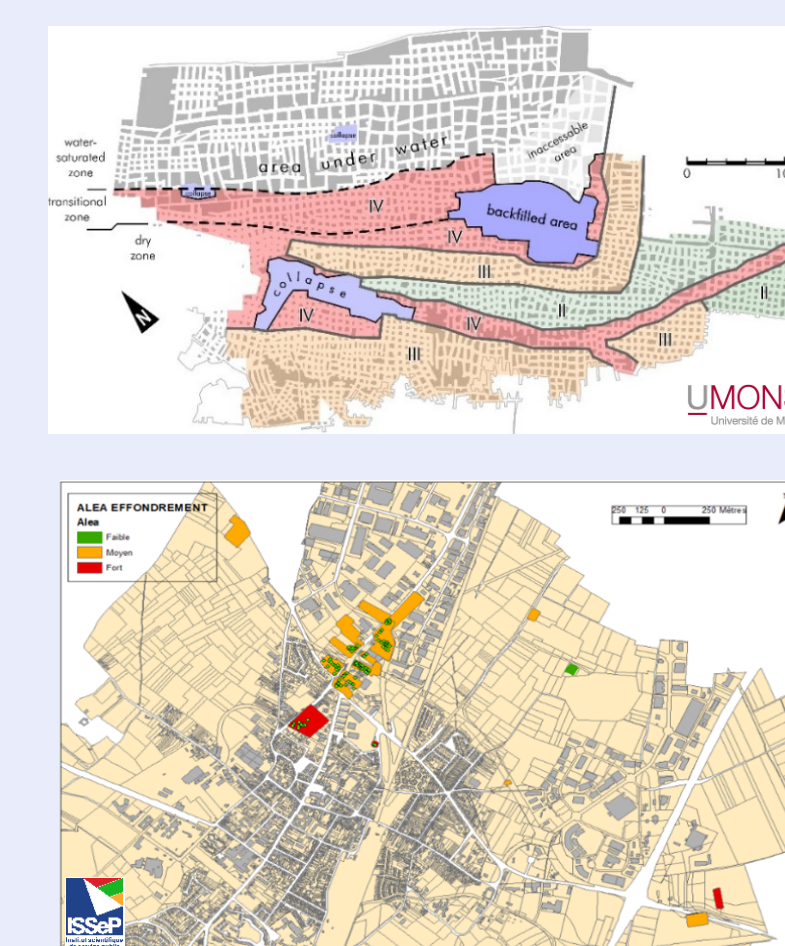
RISK ASSESSMENT Through

Physical data collection and treatment

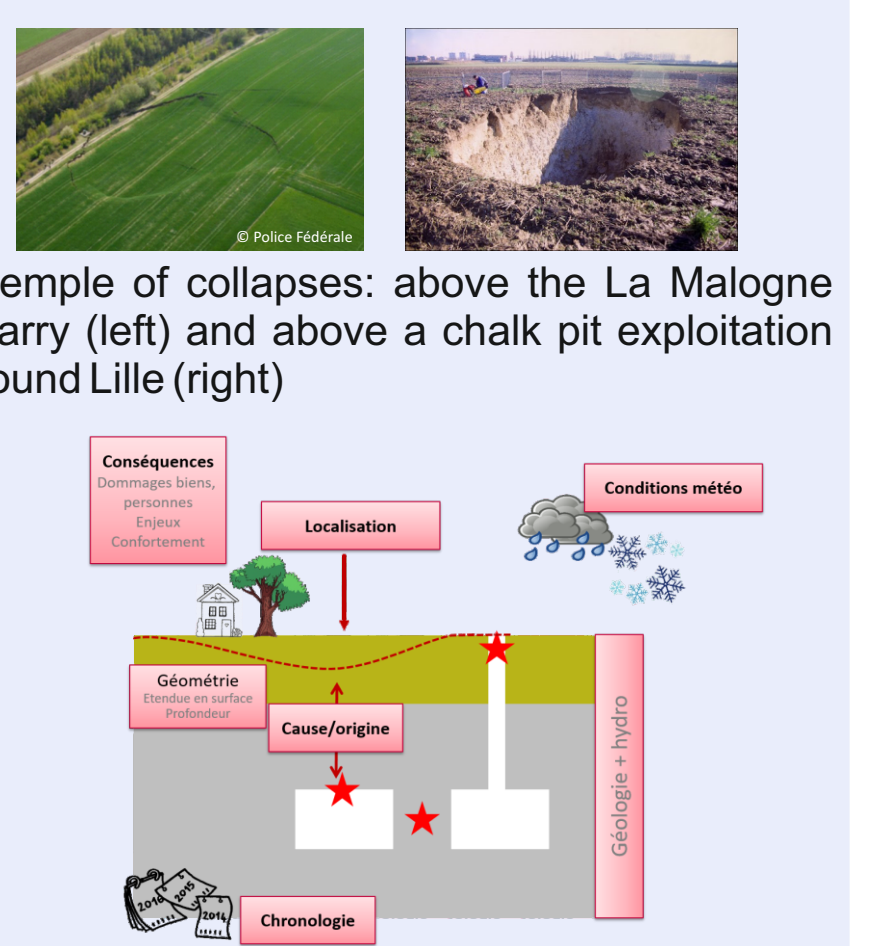


Numerical simulation of vertical displacement

Hazard mapping and methodology examination



Past accidents analysis

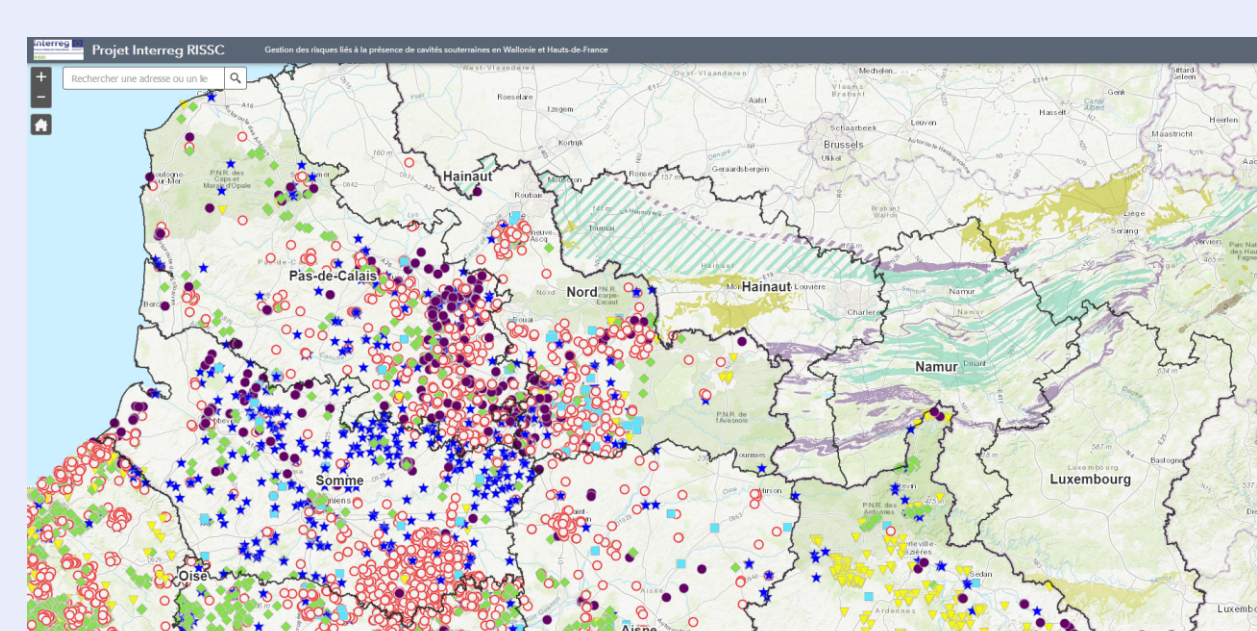


General scheme of the accidentology analysis approach (in progress)

3

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.



Cross-border webportal mapping the known cavities on both territories (work in progress)



Operators of the RISSC project sensibilizing local authorities to risk assessment



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