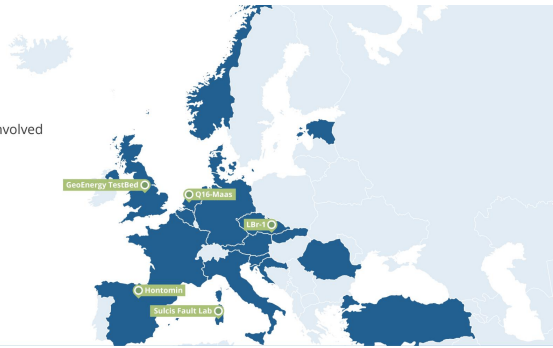


# ENabling Onshore Storage in Europe

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29 Partners  
17 Countries involved  
5 Field sites



Project is led by BRGM, France  
Project website is <http://www.enos-project.eu>  
The aim is to foster onsite storage through:



- Developing, testing and demonstrating in the field, key technologies adapted to onshore storage.
- Contributing to creation of a favourable environment for onshore storage across Europe.
- Coordinating with the population and training the next generation of researchers

## SAFE storage operations

Demonstrate safe and environmentally sound onshore storage



Key developments at Hontomin:  
Novel injection strategies tested  
1<sup>st</sup> iDAS (optic fibre) 3D seismic survey, start of data processing

- Local and regional stress study, determination of location and focal mechanism of induced seismicity events
- Reservoir fluid water sampling campaigns using Flodim Sampler
- Soil gas monitoring and continuous data acquisition at the site
- Update of the risk assessment according to new monitoring results

## EFFECTIVE monitoring

Monitoring leakage risks for protection of the environment and groundwater



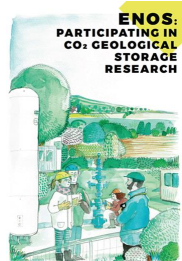
Testing and data gathering completed at natural CO<sub>2</sub> seepage sites  
Groundwater monitoring tools (Optic fibre gaseous CO<sub>2</sub> detector, GasPro groundwater probes; engineered Constellation optical fibre) ready for deployment  
Different soil gas sensors tested at natural seepage sites

- Well completion design with sensors and geo-physical monitoring ready for Sulcis Fault Lab.
- Fault and wellbore leakage risks updated and reevaluated



## LOCAL COMMUNITIES involvement

Linking the technical work to the perspective of the local population



- Preparation of activities with the local population at four ENOS sites
- Presentation of the project's technical content in lay terms "Participating in CO<sub>2</sub> Geological Storage Research" is available for free on ENOS website.
- Development of a questionnaire for feedback from citizens.
- First meeting with citizens groups in the Rotterdam area (NL) and GeoEnergy Test Bed (UK).

ENOS events at GHGT-14

## COMPREHENSIVE site characterisation

De-risking site characterisation in order to provide bankable capacity assessments

Updating geological site models

Test of feasibility and functionality of the available methods/approaches for dealing with global sensitivity Analysis on capacity estimates



Methodologies to optimise the data gathering and interpretation process to balance the acquisition costs with the insights this data provides

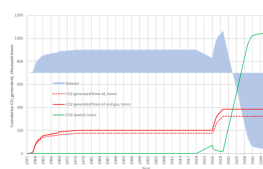
Partners now working on design procedure for low cost drilling

## ECONOMIC ACTIVITIES integration

Accelerating development and deployment of CCS in Europe

Schematic design of seasonal buffer chain and optimized buffer scheme, reservoir and well dynamics simulation

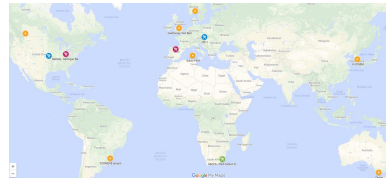
Identification of processes in the reservoir that could potentially affect the composition of back-produced CO<sub>2</sub>.



- Draft design of separation facilities to clean-up back-produced CO<sub>2</sub>.
- History-matched reservoir model of LBR-1 prepared for simulations.
- Definition of novel concepts for EOR with permanent CO<sub>2</sub> storage.

## SHARING experience

Providing a framework for sharing and mutual learning with international sites



- Site twinning partnerships established with storage sites in the USA and Australia
- Opportunities identified for new CO<sub>2</sub> storage pilot sites in Europe

- First ENOS Spring school
- 9 e-lectures published on-line
- Dedicated international master course prepared.
- First ENOS-Journalist event carried out.



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