Effective monitoring of long-term site stability for transparent carbon capture and storage hazard assessment (ENSURE)

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Project aim

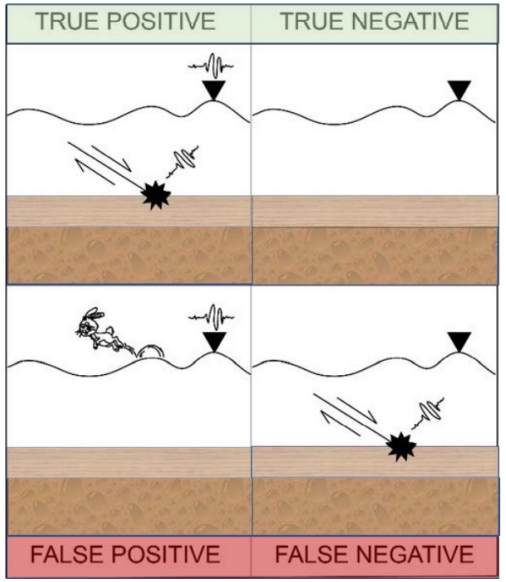
Progression of microseismic monitoring technologies to become a

- robust
- cost-effective
- publicly accepted

tool for seal integrity verification in large-scale CO_2 sequestration.

Main objectives

- Recommendations for design of fit-for-purpose and cost-effective networks. **(WP1)**
- Improved understanding of the seismodynamic behavior and identification of most relevant seismological parameters for long-term seal stability assessment. **(WP2)**
- Recommendations on how to share complex information and educate on real versus perceived risks of induced seismicity. **(WP3)**



WP 1

- Field scale testing with new acquisition
- Development of novel analysis tools (e.g. noise assessment)
- Compare sensor technologies and network setup

WP 2

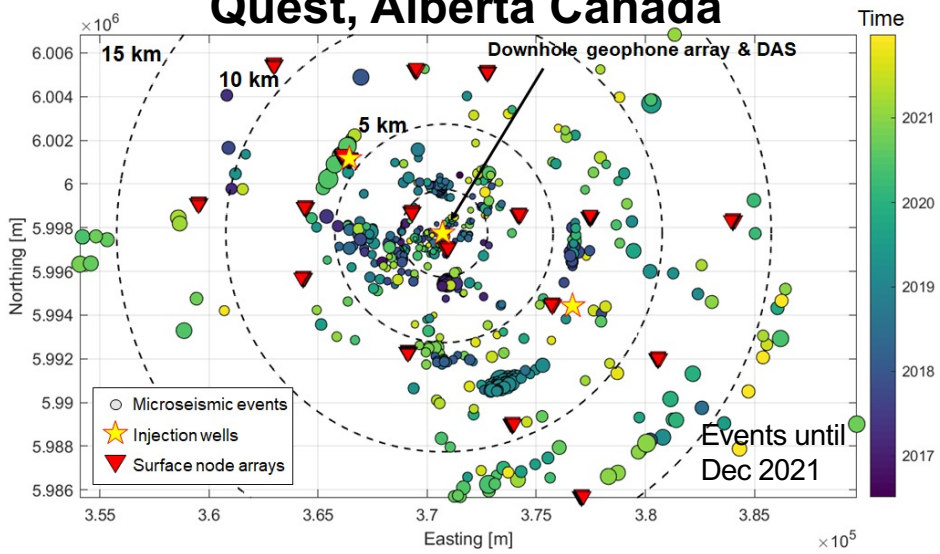
- What seismological parameters should be communicated?
- Which analyses should be performed?
- Influence of network properties

WP 3

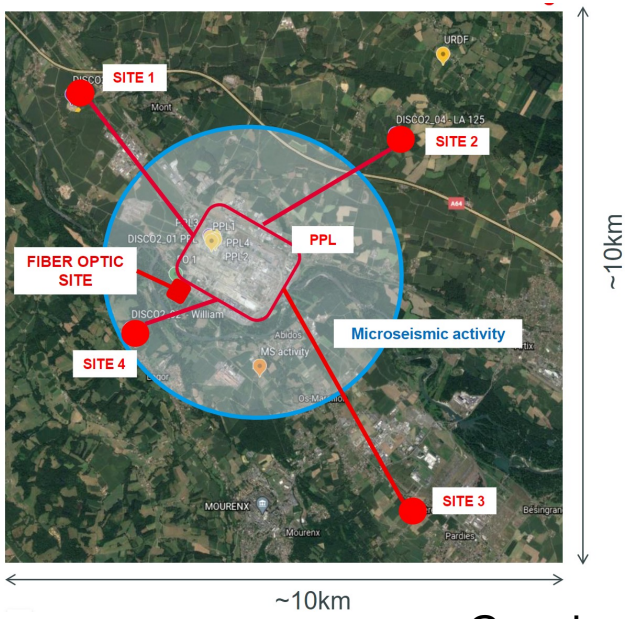
- How to communicate?

Access to unprecedented monitoring infrastructure

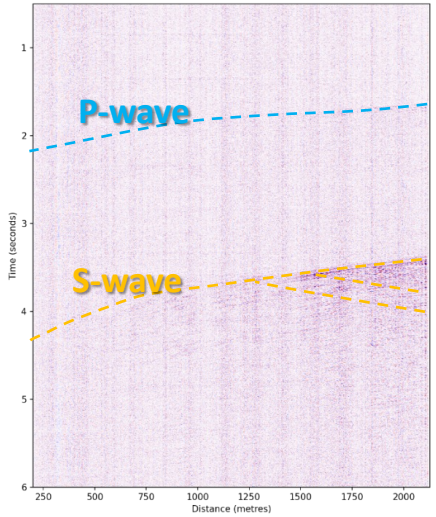
Quest, Alberta Canada



DISCO2 – Southern France

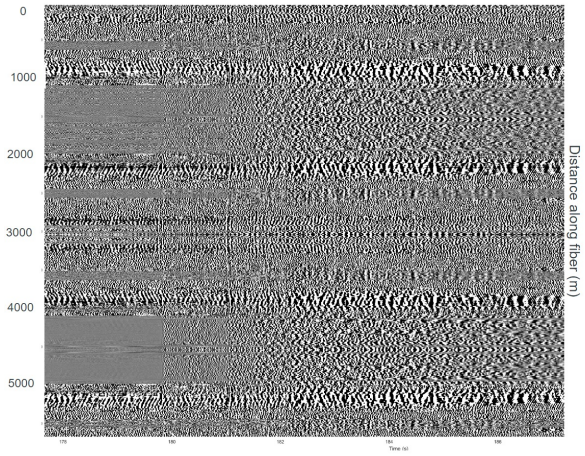


DAS



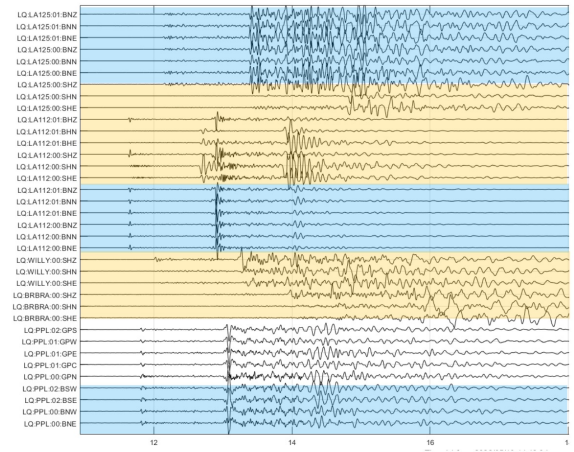
DAS

2,5 ML @ 4,4 km



Geophones

TotalEnergies



Strings of 5Hz-1C Geophones	1Hz-3C Sensors	4m-buried 5Hz-1C Geophones

Acknowledgement

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