

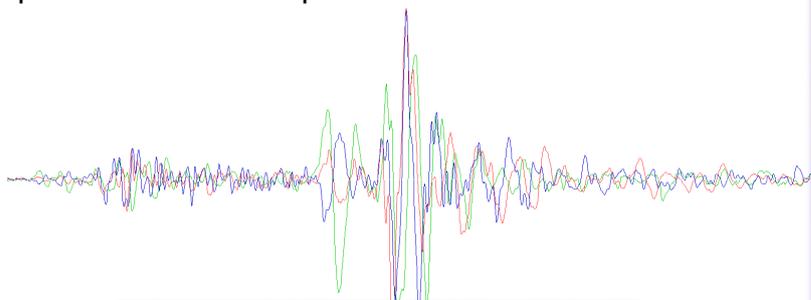


# Induced seismicity monitoring applied to underground operations and geosystems

**M**ost industrial underground operations lead to fracturing processes in the host rock, involving potential seismic hazard to underground or surface infrastructures as well as unexpected effects on the development and production of the geosystem.

**M**icroseismic monitoring yields important information on the rock mass response to engineers to better control their process and its potential impact on the environment.

**I**NERIS offers integrated solutions to monitor, map, quantify and correlate seismic activity versus the geology, the predicted stress fields and the development and production of the operation.



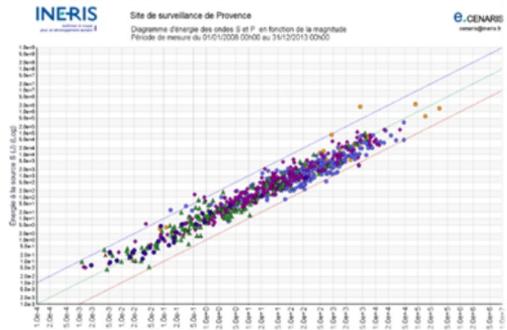
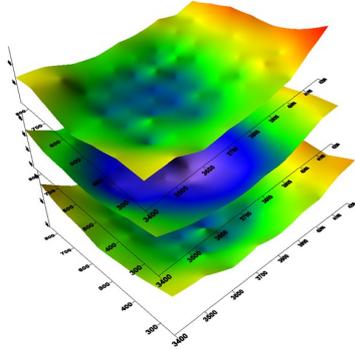
## Highlights

- Real-time processing
- Traffic light system
- In-depth post analysis
- Seismic hazard assessment

## Field applications

- Mines and quarries
- Geological storage
- Reservoir fields
- Geothermal Systems
- Dams
- Vibrations

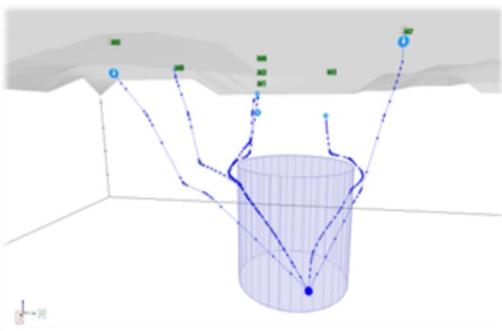
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**INERIS** has completed numerous microseismic monitoring and modelling research and operational projects in a wide range of situations, adapting methods and tools on purpose according to the objectives and operating conditions on site. INERIS identifies and sizes the most adapted seismic monitoring solution in order to collect high quality data and to optimize the analysis and expertise for refined hazard assessment strategies and better decision making.

**O**ur research studies and services are based on **SYTGEM**<sup>®</sup> hardware, **SYTMIS**<sup>®</sup> software and **e.cenaris**<sup>®</sup> web monitoring virtual infrastructure. They include:

- **Design** and modelling studies
- **Database** management
- **Customized** hardware solutions
- **Expertise** and reporting
- **Field installation** and calibration
- **Remote** administration and maintenance
- **Real-time monitoring**
- **Post processing** and analysis of dataset



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For more information and custom applications, please contact us:*

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maîtriser le risque  
pour un développement durable