

Workshop on Good Practices for Induced Seismicity Management

*Lessons learned, challenges and governance perspectives with
a focus on geothermal systems*

5th and 6th November 2026, Paris

Pullman Paris Centre-Bercy - 1 rue de Libourne, 75012 Paris

Day 1 – Thursday, 5 November 2026

08:30 – 09:00 **Registration and Welcome Coffee**

09:00 – 09:20 **Welcome Address and Workshop Introduction**

Session 1 – Regulatory Frameworks and Good Practice Guidelines Across Europe

Time	Presentation
09:20 – 09:45	Vanille Ritz (SED, ETH Zurich, Switzerland) Invited • <i>The Swiss Good-Practice Guide for Managing Induced Seismicity in Deep Geothermal Energy Projects</i>
09:45 – 10:10	Thomas Braun (INGV, Italy) Invited • <i>CMS: Geophysical Monitoring of Anthropogenic Underground Operations in Italy</i>
10:10 – 10:35	Francesca De Santis (Ineris, France) & Julie Maury (BRGM, France) • <i>The French Good-Practice Guidelines for Managing Induced Seismicity in Deep Geothermal Operations</i>
10:35 – 11:00	Annemarie Muntendam-Bos (State Supervision of Mines / Delft University of Technology, Netherlands) Invited • <i>Seismic Hazard and Risk in the Context of Revising the Dutch Mining Law</i>
11:00 – 11:25	Helga Ferket (Flemish Department of Environment, Belgium) • <i>Managing Induced Seismicity Risks Related to Activities in the Deep Subsurface in Flanders</i>

11:25 – 12:00 **Coffee Break**

12:00 – 12:45 **Panel Discussion** • *From Guidelines to Practice: Bridging Industry, Regulators, and Research Through Best Practices*

12:45 – 14:00 **Lunch**

Session 2 – Operational Experience and Risk Management in Geothermal Projects (Part I)

Time	Presentation
14:00 – 14:25	Jean Schmittbuhl (CNRS / University of Strasbourg) Invited • <i>Induced Seismicity During the Vendenheim Deep Geothermal Project: Contributions from Dense Monitoring and the Role of Natural Thermal Convection</i>
14:25 – 14:45	Thomas Braun (INGV, Italy) • <i>Review of European Examples of Seismic Traffic Light Systems and Their Suitability for Geothermal Exploitation in Italy</i>
14:45 – 15:05	Justin Pogacnik (VITO, Belgium) • <i>A Risk Management Toolbox for Minimizing Induced Seismicity and Maximizing Production: HEU URGENT Update</i>
15:05 – 15:25	Antoine Haddad (Hydro Geo Environnement, Switzerland) • <i>Characterization, Assessment, and Management of Induced Seismicity Risk During the Development of a Geothermal Doublet: Application to the Satigny Project (Geneva)</i>

15:25 – 15:45 **Coffee Break**

Session 2 – Operational Experience and Risk Management in Geothermal Projects (Part II)

Time	Presentation
15:45 – 16:05	Mathieu Bellanger (TLS Geothermics) • <i>Induced Seismicity Management Plan for the GEOPULSE Project</i>
16:05 – 16:25	Matsen Broothaers (VITO, Belgium) • <i>Development and Implementation of a Predictive Traffic Light System at the VITO Geothermal Site (Mol, Belgium)</i>
16:25 – 16:45	Falko Bethmann (Geo-Energie Suisse AG) • <i>Advances in Urban EGS Seismic Risk Mitigation Through the Haute-Sorne Pilot Project</i>
16:45 – 17:05	Nicolas Wynants-Morel (Lithium de France) • <i>LS1: Feedback on the First Deep Geothermal Project Developed Following the Publication of the French Regulatory Guidelines</i>

17:05 – 17:20 **Closing Remarks – Day 1**

Day 2 – Friday, 6 November 2026

08:30 – 09:00 **Registration and Welcome Coffee**

Session 3 – Monitoring Technologies and Monitoring Networks

Time	Presentation
09:00 – 09:20	Denise de Vos (Royal Netherlands Meteorological Institute, KNMI) • <i>The Extension of the Dutch Seismic Monitoring Network Operated by KNMI</i>
09:20 – 09:40	Estelle Rebel (TotalEnergies) • <i>Fiber Optic Technologies for Induced Seismicity Monitoring: Applications to CO₂ Storage</i>
09:40 – 10:00	Tania Toledo (SED, ETH Zurich, Switzerland) • <i>Enhancing Monitoring and Management of Induced Seismicity in Swiss Geothermal Projects Using Waveform Similarity</i>
10:00 – 10:20	Alexander Garcia (INGV, Italy) • <i>Defining the Expected, Detecting the Unusual: Probabilistic Thresholds for Micro-Seismic Monitoring and Decision Support</i>
10:20 – 10:40	Rémi Fiori (Geo-Energie Suisse) • <i>Preservation of Evidence Through a Citizen-Hosted Accelerometer Network at Haute-Sorne EGS</i>

10:40 – 11:00 **Coffee Break**

Session 4 – Monitoring, Communication and Society

Time	Presentation
11:00 – 11:25	Philippe Chavot & Anne Masseran (LISEC, University of Strasbourg) Invited • <i>What Do Citizens Do with Seismic Data? When a Seismic Monitoring Network Becomes a Mediation Device: The Case of the Alsace Citizen Seismic Network</i>
11:25 – 11:45	Jean-Christophe Le Coze (Ineris, France) • <i>From Induced Earthquake to Socio-Political Earthquake</i>
11:45 – 12:05	Gudela Grote (ETH Zurich) • <i>Establishing a new social contract for safety: The example of deep geothermal energy</i>

12:05 – 12:50 **Panel Discussion** • *The Role of Monitoring and Communication in Maintaining Public Engagement*

12:50 – 14:00 **Lunch**

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Session 5 – Advances in Understanding and Forecasting Induced Seismicity (Part I)

Time	Presentation
14:00 – 14:25	Pierre Dublanchet (Mines Paris-PSL) Invited • <i>Fluid-Induced Earthquake Sequences Reveal Distinct Controls on Rupture Timing and Size</i>
14:25 – 14:45	Gianluca Gerardi (FAST-CNRS / Université Paris-Saclay) • <i>Geomechanical Modeling of Injection-Induced Seismicity at the Muara Laboh Geothermal Plant</i>
14:45 – 15:05	Ryan Schultz (ETH Zurich) • <i>The M4 Earthquakes Induced by the Quest Carbon Capture and Storage Project</i>

15:05 – 15:30 **Coffee Break**

Session 5 – Advances in Understanding and Forecasting Induced Seismicity (Part II)

Time	Presentation
15:30 – 15:50	Karri Kiran Keerthi (Institute of Geophysics, Polish Academy of Sciences) • <i>Anti-Repeaters and Quasi Anti-Repeaters as Indicators of Damage Evolution in Anthropogenic Seismicity</i>
15:50 – 16:10	Vincent Maurer (ES-Géothermie) • <i>Induced Seismicity at Rittershoffen: The Key Role of Reservoir Cooling</i>

16:10 – 16:30 **Workshop Conclusions and Closing Remarks**
