

## Good practice guidelines to minimize seismic risk at Enhanced Geothermal Systems

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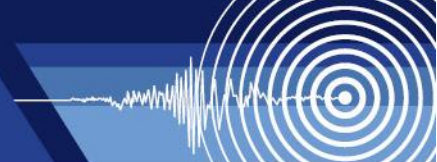
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### Good practice guidelines to minimize seismic risk at Enhanced Geothermal Systems

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Geothermal energy is a source of clean, renewable, and sustainable power that could play an important role in future energy portfolios. Enhanced Geothermal Systems (EGS) in particular have the potential to scale up accessibility to thermal resources. Seismic events of significant size associated with the development of EGSs display a negative socio-economic impact, posing a risk to the local infrastructure and the public, undermining the public acceptance of pending and future projects. To achieve a sustainable exploitation of geothermal resources using EGS, reservoir productivity needs to be enhanced while keeping seismic risk at an acceptable level during all stages of the project. In this document, we recommend good practices to evaluate, mitigate and communicate the risk of induced seismicity for EGS projects. This document is produced by the DEEP consortium, with input from more than 17 experts, with expertise in geophysics, seismology, earthquake engineering, risk management and communication. We advocate for a modular approach, providing recommendations on (1) seismic risk pre-screening, (2) data acquisition and research, (3), communication and outreach, (4) comprehensive seismic risk analysis, (5) seismic monitoring, (6) traffic light protocols, and (7) operational mitigation strategies. Our framework is designed to facilitate various stakeholders, such as regulators, operators, independent experts and affected communities.

