

WP 22: Virtual access to the data and applications of anthropogenic seismicity and related hazards

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Keywords

Induced seismicity, anthropogenic hazards, comprehensive datasets on anthropogenic seismicity, EPOS Thematic Core Service Anthropogenic Hazards, IS-EPOS Platform

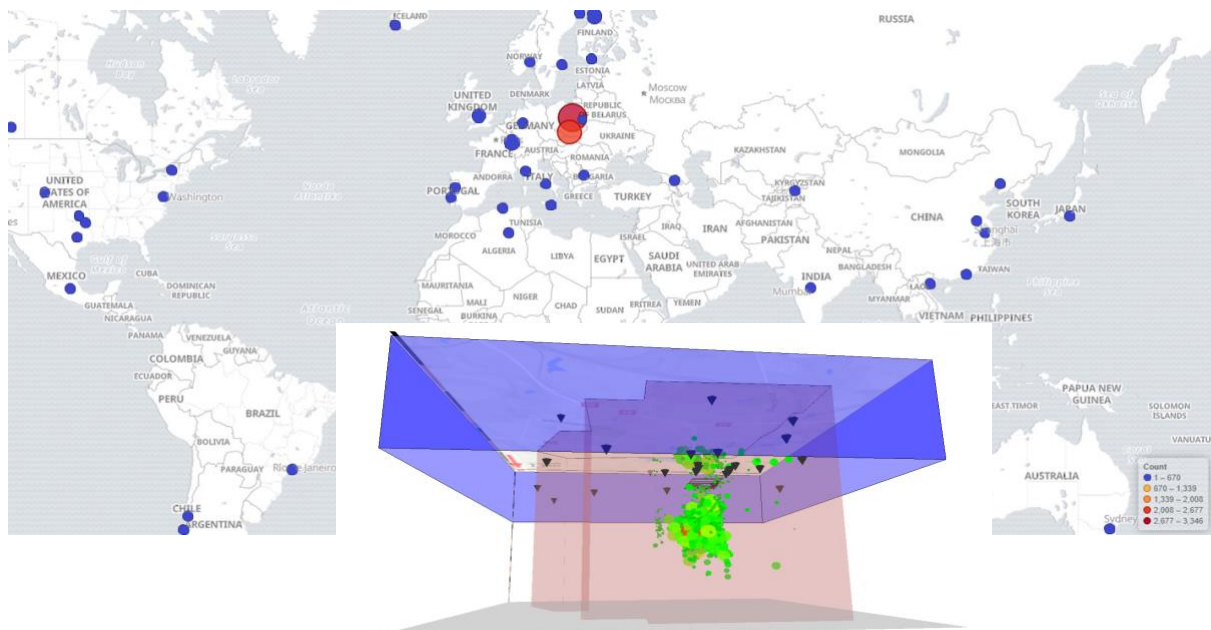


Figure 1. Background: map of global user logins. This map demonstrates the global usage of the IS-EPOS platform that integrates research infrastructure of EPOS TCS AH. Foreground: example of what is possible to do with the platform. Figure shows a 3D sketch of induced seismicity distribution in Bobrek Coal Mine, Poland.

Main Results

Within the framework of Virtual Access (VA5) of WP22 in the SERA project, we are providing 19 new episodes of anthropogenic hazards. In total, 25 episodes from 10 different countries are openly available. These are up to now nine episodes more than originally planned. An episode of anthropogenic seismicity contains seismological catalogues, event based or continuous waveforms of seismic signals, technological data on seismicity inducing industrial activities, geological and tectonic settings, and information on environment. This facilitates research aiming at understanding the interactions between the parameters of the industrial activities and the anthropogenic seismicity. The virtual access gives researchers and other interested or concerned groups in society a chance to gain information on detailed knowledge. The number of registered users of IS-EPOS platform is 1094.

Access to Data and Services

Access to the website of IS-EPOS platform is through <https://tcs.ah-epos.eu/>

List of episodes, available for SERA members and the general public:

Name of episode	Type	Location
Asfordby	underground mining	GB
Bobrek Mine	underground coal mining	PL
Czorsztyn	shallow water reservoir	PL
Cotton Valley	hydrocarbon extraction	USA
Gazli	hydrocarbon field	UZ
Gisos-Cerville	underground solution mining	FR
Groningen Field	hydrocarbon production	NL
Gross Schoenebeck	geothermal energy experiment	GE
Lacq Gas Field	conv. Hydrocarbon extraction	FR
LGCD	underground copper mine	PL
Lubocino	shale gas	PL
Monteynard	water reservoir	FR
Northwich	salt extraction cavities	GB
Oklahoma	hydrocarbon extraction	USA
Preesall Mine	salt extraction cavities	GB
Preese Hall	shale gas	GB
Pyhasalmi Mine	hydrocarbon extraction	SU
Song Tranh	deep water reservoir	VIE
Starfish	underground gas storage	FR
The Geysers	geothermal field	USA
The Geysers Prati 9 and Prati 29 cluster	geothermal field, enhanced catalogue	USA
Thoresby Colliery	underground coal mine	GB
USCB	underground coal mining	PL
Vouglans	water reservoir	FR
Wysin	shale gas	PL

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