

On 26 April 2021 Bulgartransgaz EAD organised an on-line event **presenting the outcome of 3D seismic surveys on the area of the Chiren structure** (Activity 1) and **quality control of the 3D field seismic surveys and processing of the acquired data** (Activity 2) that are realised within the project for the **expansion of Chiren UGS 6.20.2**. (Action No.6.20.2-0021-BG-S-M-15).



The performance of the seismic surveys has been carried out with the financial support under the Connecting Europe facility amounting to 50% of the incurred costs.

The event presenting the outcome saw the involvement of representatives of the science community, non-governmental organisations and other interested parties and of the European financing institution Climate Infrastructure and Environment Executive Agency (CINEA).

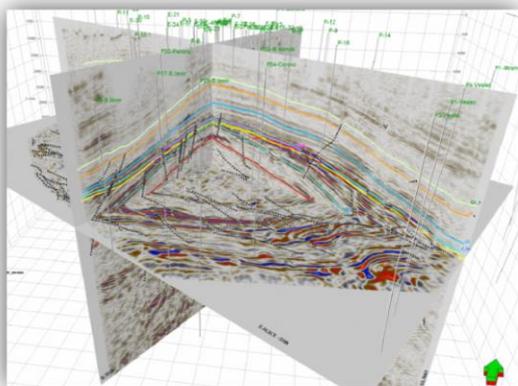
The 3D seismic surveys represent the latest of a series of geological and geophysical surveys whose objective is to determine the optimum parameters of expanding the Chiren underground gas storage facility.

The seismic surveys were carried out in 2020 on a total area of about 200 square km.



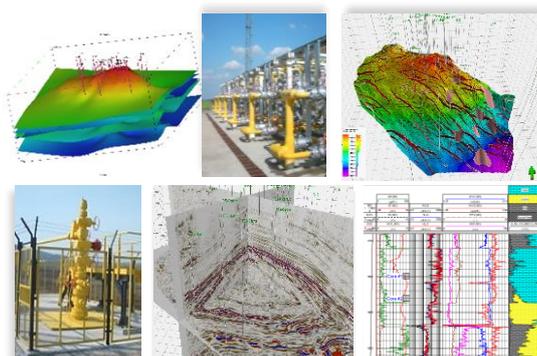
**The main results** of the 3D seismic surveys are:

- ✓ A detailed and reliable three-dimensional picture of the Chiren structure has been obtained, including stratigraphic horizons at different levels and faults, as well as data allowing for a detailed recognition of the water-gas contact zone.
- ✓ Areas with improved porosity were found.
- ✓ Areas with increased crack intensity were found.
- ✓ A map of the fracture strike distribution has been prepared.
- ✓ A model of the local faults distribution has been built, which together with the acquired data for improved porosity, intensity and fracture strike will be used in determining the location, azimuth of the shaft and the angle of inclination for the design of new wells.
- ✓ New knowledge about the geological reservoir that will be used to optimize Chiren UGS operation.



The completion of the project „Conduct of 3D field seismic surveys on the area of Chiren structure“ realised successfully the main objective of the funded project: to localise areas with improved or increased gathering properties of the rocks; to determine the location of new exploitation wells, required for the increase of the daily flowrate of Chiren UGS and the location of the new observational wells, controlling the gas migration processes in the periphery of the structure.

After the analysis of the outcome of the completed complex of geological and geophysical surveys and the preparatory works, the next activities involved in the expansion of Chiren UGS were launched, namely: The design and construction of the required surface and underground equipment that Bulgartransgaz EAD has already started in early 2021.



**Chiren UGS is an integral part of the national, regional and European gas network.** The European Commission has appreciated the importance of the storage facility to achieve the objectives of the European Union and has included the project for „**Expansion of Chiren UGS**“ in the list of projects of common interests for the EU.