

# Seismic imaging of the deep domains of the Upper Rhine Graben

New upgrade of  
the 2D seismic data



**1 256 km / 96 2D seismic lines**

A new seismic processing  
of the Upper Rhine Graben

New insights for oil&gas exploration

STUDY / TRAINING

OIL / GAS

DEEP GEOTHERMAL SCIENCE

UNDERGROUND STORAGE

HYDROGEOLOGY

# CDP Consulting is pleased to propose you a non-exclusive study of **the Upper Rhine Graben**, based on a new processing and interpretation of **2D seismic lines**.

Its goal is to maximize the imaging of the deep ante-Cenozoic events, including a PSDM version, really innovative in this area.

The selection of the 2D seismic lines takes care acquisition parameters, the deep well distribution and the location of the main geological areas of the Upper Rhine Graben.

This synthesis is addressed to all the geoscientists who look for a better understanding of the geology of the Upper Rhine Graben, particularly for some issues as the oil and gas exploration, geothermal resources, gas storage, hydrogeology, natural hazards ...

## Seismic processing

The seismic processing includes 96 seismic profiles totalising 1256 km and coming from **different seismic campaigns acquired between 1973 and 1983**.

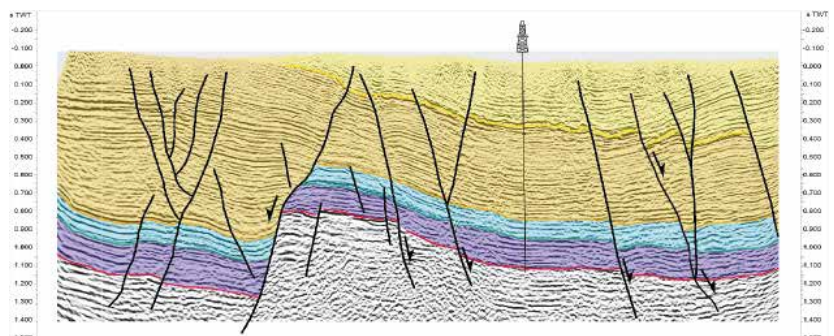
- A processing sequence appropriate for the Upper Rhine Graben.
- Static corrections will be computed from a geological velocity model.
- The processing will propose a Pre-Stack Depth Migration (PSDM), in order to enhance the structural imaging.
- Harmonization of the seismic profiles to minimize the differences coming from the variability of the seismic acquisition parameters.

## Seismic Interpretation

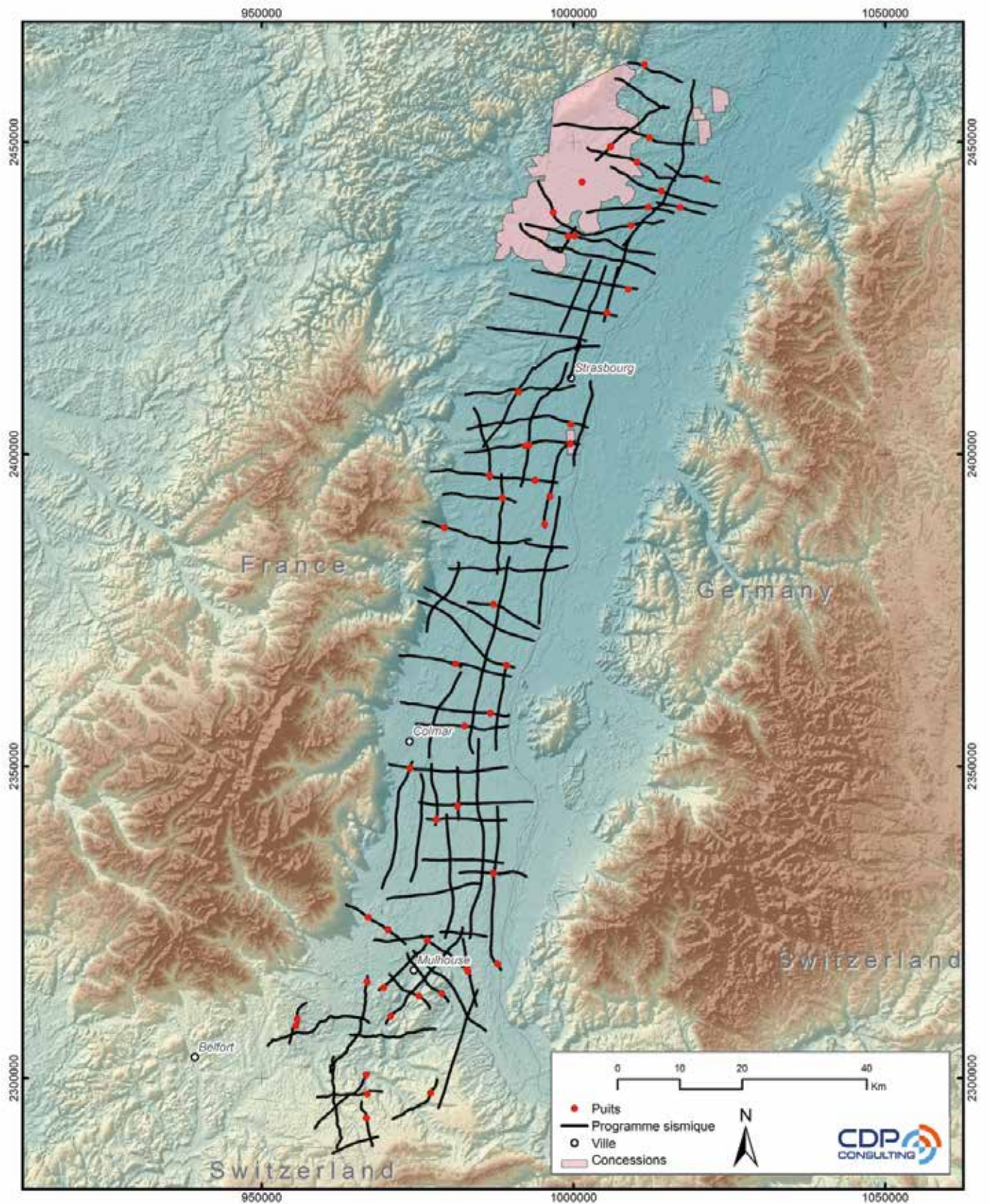
The seismic interpretation will include :

- Well calibration using synthetic seismograms
- Well calibration using well reaching at least the base of the Tertiary.
- Seismic picking for the following horizons :
  - the base of the Pliocene
  - the base of «Marnes à Foraminifères»
  - the top of the Eocene
  - the Mesozoic/ Cenozoic boundary
  - the top of the Triassic
  - the top of the Muschelkalk
  - the top of the Buntsandstein

The seismic interpretation will lead to **a better understanding of the ante-Cenozoic story of the Upper Rhine Graben**. The information coming from the interpretation will be summarized through structural maps in order to highlight the main geological domains.



A regular cover in seismic profiles over the Upper Rhine Graben for a better understanding of the geological story.



96 seismic profiles - 1256km

## Products

SEG Y and TIFF of the reprocessed seismic profiles

TIFF of the interpreted seismic profiles

Seismic interpretation report including:

- the interpretation of the seismic profiles (7 layers)
- Export of the seismic interpretation project (Picked horizons and faults in time)



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