

KNOWING YOUR NEIGHBOURS

TOWARDS A CONSISTENT INTERPRETATION OF THE SUBSURFACE IN THE FLEMISH-DUTCH BORDER REGION

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TNO innovation for life

The collection and unambiguous interpretation and analysis of (hydro)geological information on both sides of the border are essential ingredients in the management and sustainable use of the subsurface and its natural resources in the border region. The information currently available from the neighbouring countries often lacks compatibility and the same amount of detail. On 13 March 2012 the “H30” project, which stands for “(Hydro)geologische 3d-modellering Ondergrond”, got under way. This project's aim is a consistent interpretation of the subsurface in the Flemish-Dutch border region.

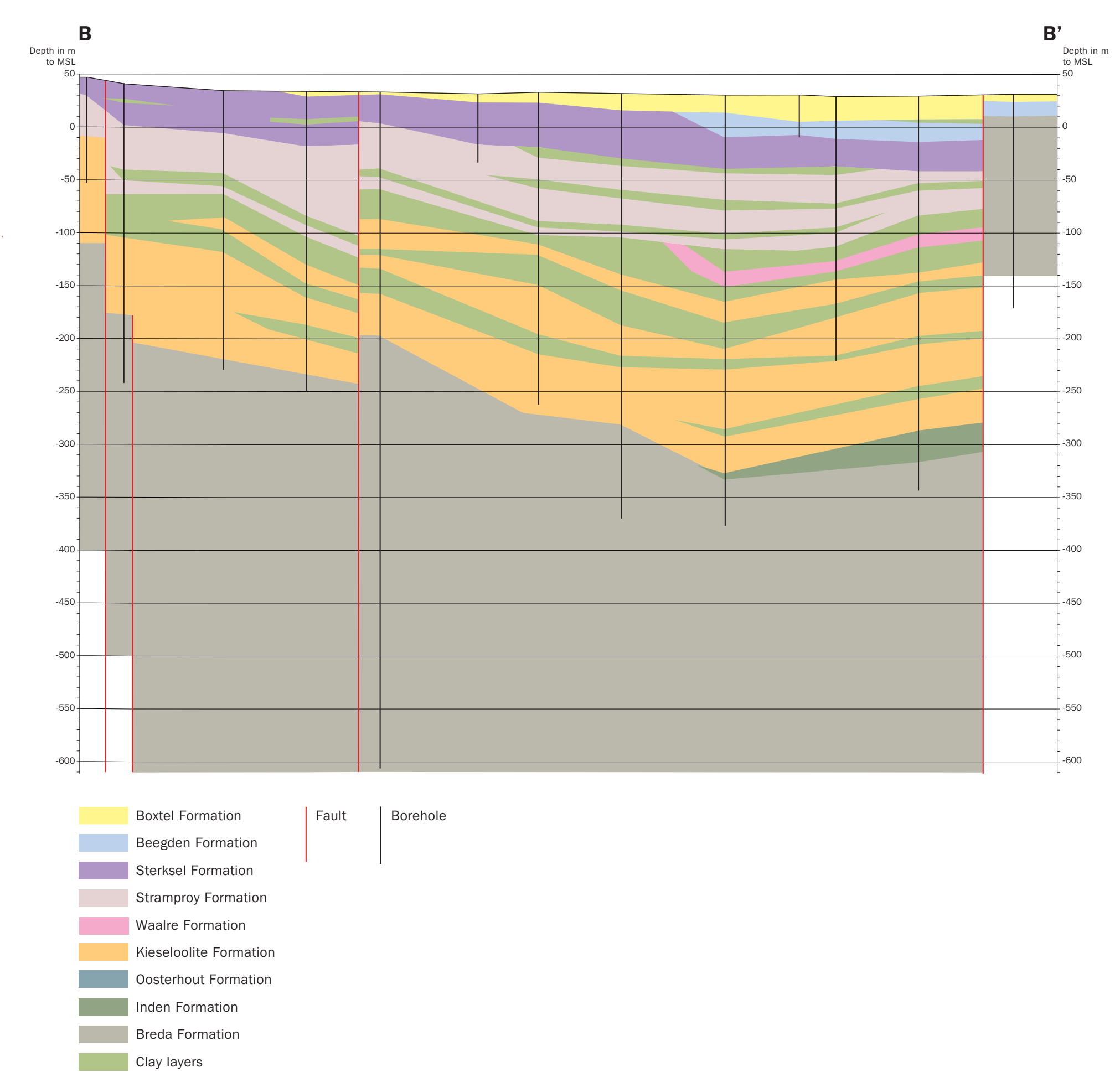
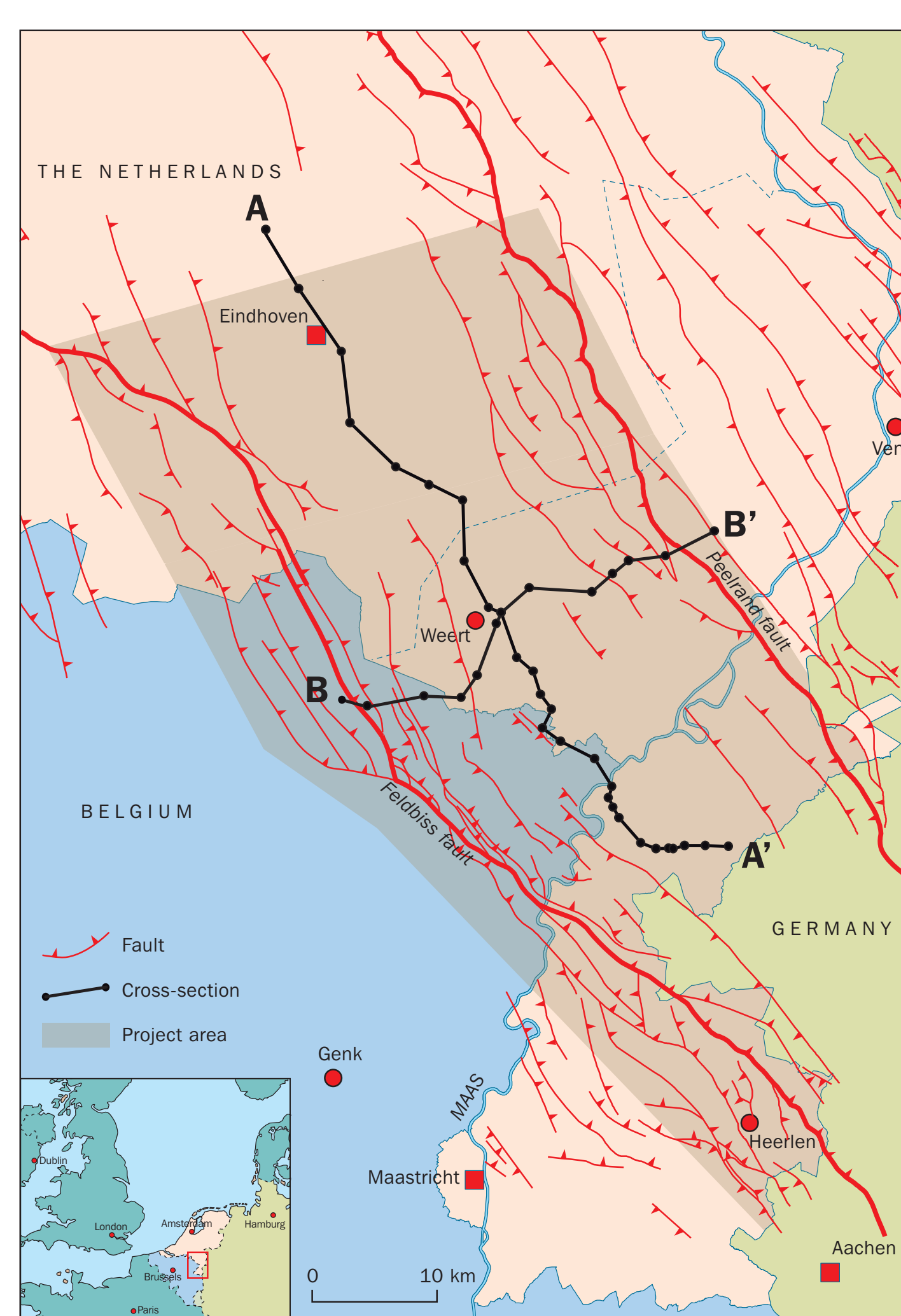
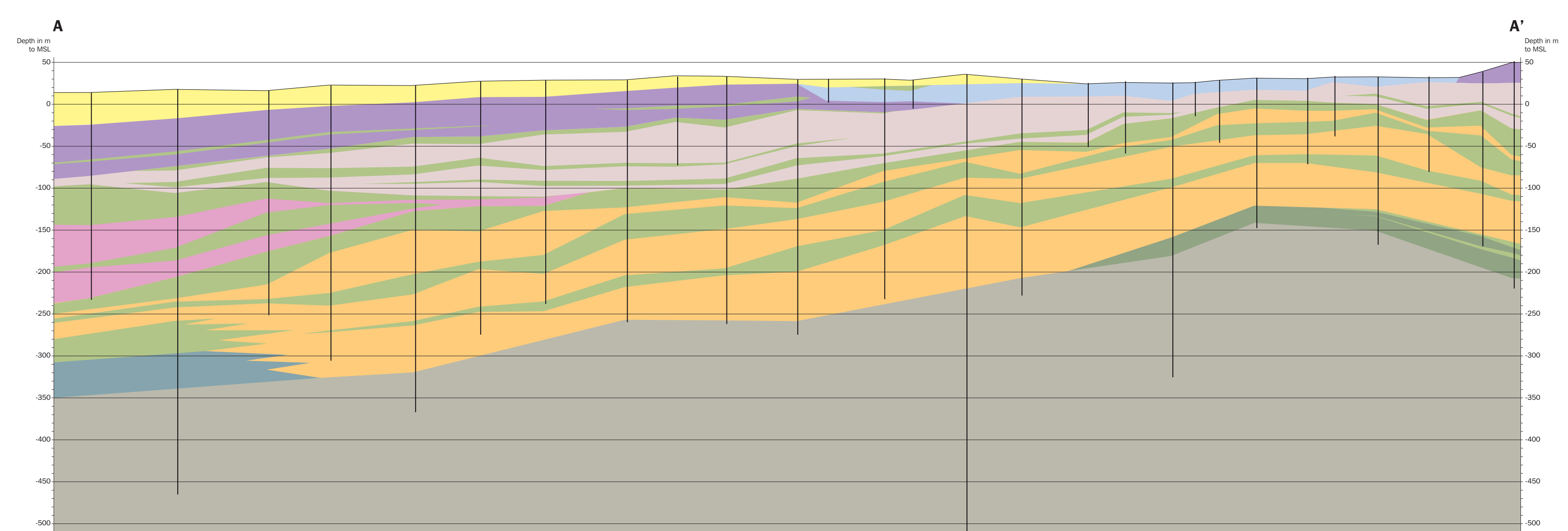
The Dutch Provinces of Limburg and Noord-Brabant and TNO and the Environment, Nature and Energy Department of the Flemish Government, the Flemish Environment Agency, VITO and the Geological Survey of Belgium will be cooperating to harmonise the geological and hydrogeological models of the Netherlands (DGM and REGIS II) and Flanders (Geological 3D model and HCOV).

ROER VALLEY GRABEN

The H30 project focuses on the Roer Valley Graben that runs from Germany in a north-westerly direction over the central part of Limburg, the north-easterly part of the Belgian province of Limburg to Noord-Brabant and is bordered by major fault zones along the north and south perimeters. The aim of the project is to make a cross-border, up-to-date, three-dimensional geological and hydrogeological model of the Quaternary and Tertiary deposits in the Dutch and Flemish part of this region. This will help to identify, study and rectify the differences between the existing (hydro)geological interpretations.

GEOLOGICAL AND MODELLING EXPERTISE UNITED

The work will be supervised by a committee of experts –including the Geological Survey of North Rhine-Westfalia– and carried out by VITO, the Belgian Geological Survey and the Geological Survey of the Netherlands of TNO. These organisations have extensive knowledge of the stratigraphy and regional geology as well as experience of creating 3D models of the subsurface (Geological 3D model of Flanders, DGM, REGIS, GeoTOP). Delivery and presentation of the final results are expected in the spring of 2014.



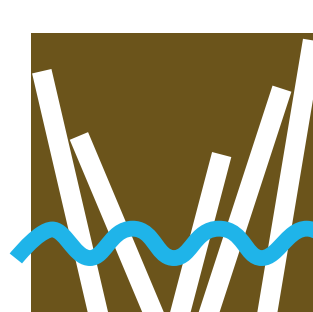
Project area and cross-sections through the Quaternary and Upper Tertiary deposits. These cross-sections were compiled to check the correlation of Dutch and Belgian geological and hydrogeological units to support the (re)interpretation of borehole and seismic data. The cross-sections clearly show the extent and magnitude of the Kieseloolite Formation which consists of thick series of fluvial sand and clay deposits. Sand layers of this formation are the most important trans-boundary aquifer in the Roer Valley Graben, the clay layers are very poorly permeable and can be considered as aquicludes which protect the underlying aquifer.



provincie limburg



Provincie Noord-Brabant



Project H30
brengt
de Roerdalslenk
grensoverschrijdend
in kaart

Geological Survey of the Netherlands **TNO.NL**