National geocoding service for cadastral parcels

In addition to their clear spatial reference, parcels of land throughout Germany have a uniform 20-digit key.

Nevertheless, there is still no search engine that makes it possible to find parcels nationwide. The linking of factual and spatial information in times of digital maps is a standard task and decisive for spatial processing and visual analysis.

In the course of Digital Administration, German authorities are obliged pursuant 14 of the E-Government Act to provide new or revised registers relating to parcels with a coordinate so that the information in the registers can be displayed on digital maps.

As a member of the Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany (AdV), the Federal Agency for Cartography and Geodesy (BKG) is therefore working together with all the Laender of Germany on a nationwide solution. The goal is the development of a service for the geocoding of parcels, which enables the automatic search for parcels.

The challenge is to bring together the different services from a technical and legal point of view, as the responsibility for collecting and updating this data lies with the Laender. Nine Laender currently have appropriate services in place to support geocoding of parcels.

To reach a nationwide solution, the services must be bundled in a service cascade. The prerequisite for this is a common standard that harmonises the interface and the data model. The Web Feature Service (WFS) of the Open Geospatial Consortium (OGC) serves as the interface – a uniform data model is currently still being developed.

The provision of information via a service cascade is in line with AdV’s provisioning strategy. This first trend-setting solution represents a special challenge. At the Service Centre for Geoinformation and Geodesy of the Federal Government in the BKG, a prototype is currently being developed which will bundle the various services and data of the Laender. In addition to the services of the Laender, alternative data sources from six other federal states based on the Real Estate Cadaster (ALKIS) are also used. The requirements of an organizational and licensing consideration of legal peculiarities at Laender level still have to be clarified with the Laender.