

A NEW ORGANISATION AND NEW TASKS FOR THE NATIONAL LAND SURVEY OF FINLAND

The National Land Survey of Finland is responsible for the national land registry, cadastre and mapping. It also promotes the development of a spatial data infrastructure.

In 2015 the Finnish Geodetic Institute (FGI) and the Centre for ICT Services, which provides Ministry of Agriculture and Forestry agencies with sector-specific IT services, merged with the National Land Survey. As a result, it now has responsibility for spatial data research, spatial application development and information system development. The basic tasks of maintaining the topographic data system, real property system and registration system remain unchanged.

FGI carries out research in geodesy and geodynamics, remote sensing and photogrammetry, navigation and positioning as well as geoinformatics and cartography. The merger of a spatial data research institute and an agency specialising in the application of spatial data paves the way for new innovations and practical applications.

The competence of FGI was immediately put to use in the National Topographic Database programme. The new National Topographic Database will be a multi-level database consisting of base map data from municipalities and topographic data collected by the National Land Survey. The initiative is responding to changing demands for spatial information, for example a growing requirement for 3D modelling, with the first pilot results expected in 2017.

Research results from FGI will be used to generalise municipal data. It is also investigating the use of mobile mapping and unmanned aerial vehicles for updating base maps as well as automated methods for analysing remote sensing data. A small laser scanning system for mobile platforms developed by FGI has already proved popular with start-up and utility companies. For example, when mounted on an unmanned aerial vehicle, it enables faster, more cost-effective identification of survey faults in power lines such as after a storm. Previously this required five helicopters in flight for a week to map power lines maintained by five different utility companies. With 50 robot drones, the same area can be inspected in half a day.

