

## National Plan Data System in Finland

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### Abstract

The Finnish Cadastre System is under wide renovation. On site plan areas cadastral registration and surveys have been carried out by municipal surveyors in 87 towns (of about 400 municipalities) and on all other areas by National Land Survey district offices. So the national cadastre has been formed up of 88 separate databases. There exists also a separate information database updated from the original databases but it is suffering of some lacks of consistency and has no geographic data. The new national cadastre will be in one nationwide database including also parcel boundaries. Thus the new cadastre will also be essentially a spatial data system and spatial data management is also a tool for controlling and ensuring data consistency.

The new cadastre will also be the basis for the national Plan Data System which is aimed to provide information of public land use rights and restrictions. To present this kind of information a spatial data system is needed. Very often the need of this information is connected with trade of real estates or parcels and building projects. So the data is needed to be presented together with the cadastral data, and also as official drafts or extracts.

A remarkable aspect in the new land use and building law is to evaluate if land use plans are up-to-date. So we also need to find simple means to express the situation. Through the cadastre system it would be possible to retrieve building data in the system, but at the moment there are problems in accuracy of reference coordinates of buildings. The other way to be examined could be using the building data and identifiers of national topographic database which is in the same geographic data system.

Information of public land use rights and restrictions could mean a wide variety of issues from legal to environmental aspects, but the most urgent demand is for confirmed site plans (about 50 000 in number) and master plans (about 500), building forbid and nature reserve areas. The data to be stored in the second implementing phase will be evaluated when it will be actual. Also interoperability with environmental data systems is aimed. At the moment XML seems to be the key tool in data transfer. Also metadata management will have an important role in further development.

In the Plan Data System plans will be stored as raster files and orientated to the cadastral coordinate system. Boundaries of each individual plan are stored also in vector format as well as building forbid and nature reserve area boundaries making up an index map. The raster plan of the area concerned will be spatially located and retrieved through the index map. Also the combination of valid plans in certain area will be generated using index map boundaries. The system will be in public access as a www-application and it will be closely connected with the national cadastre so that for instance cadastral boundaries can be viewed transparently with the plan data. At the moment it is planned that the vector data will be stored in same database as the national cadastre.