Finnish Perspective on How Land Administration Data Can Be Made to Good Use

Conference and Plenary Meeting of the Permanent Committee on Cadastre in the European Union (PCC)

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Today´s young people don't have the patience to handle the complicated formal procedures created by yesterday´s young people.

They want fast, simple, and straight forward service.

Content

- The foundation of society
- Adding value to data
- Providing tools
- Examples
- Conclusions

Cadastre, Land Register, Topographic Data - Cornerstone of the Society and Vital for Economic Activities

- Coverage, timeliness, trustworthiness, accuracy, interoperability…

- Key to usage of real estate (Cadastre, Land Register) data - or any data

- Open and free topographic data since 2012

Adding Value to Cadastral Data

- Project to formalise the basic processes for improvement of data.
  - Use rights and servitudes of a real estate unit are given location
- A service will retrieve the location directly to map view.
  - Offers clear benefits to the customer.
- Legislation allows other authorities to update the Cadastre directly
  - Only National Enforcement Authority does this in the Land Register where it is available in cadastral activities.
- Plans to enable also the other relevant authorities are underway.

Tools for Users to Access Data

- Mainly web services and API's, such as REST, WMS, WFS and also OGC API Features.

- User can get a map (an image) or actual cadastral data (GML, GeoJSON, XML).

- Several e-services to view data of your own property units, query owner of a property unit, register ownership, register a leasehold or other special right and order extracts and certificates.

- For professional users resellers of the cadastral data are central in offering services.
  - Use authorities' APIs and have web services, where they process data from various sources for end-users' needs.
  - Can also digitalise property transactions and offer services for digital property agreements using NLS document APIs.

Beside the traditional users, the police use the Cadastre when investigating financial crimes.

"Boundary Mark Chase"

Project to test improving the location data of boundary mark information through crow-sourcing

- Available to citizens in summer 2021
- More accurate location data collected using mobile phones.
- Web-based service, not a separate downloadable application.
- On the map view the boundary marks, on which we wanted more accurate location
- Ca 20 000 measurement results received → the project was considered successful.

Next project started early 2022.

- Goal to improve the accuracy of the mobile phone data from 3 m to 1 m through additional calculations using satellite data and correction factors.
- If successful potential tool for own production

Cadastre and the Environment

Cadastre and Land Register contain

- no environmental information

- no building information

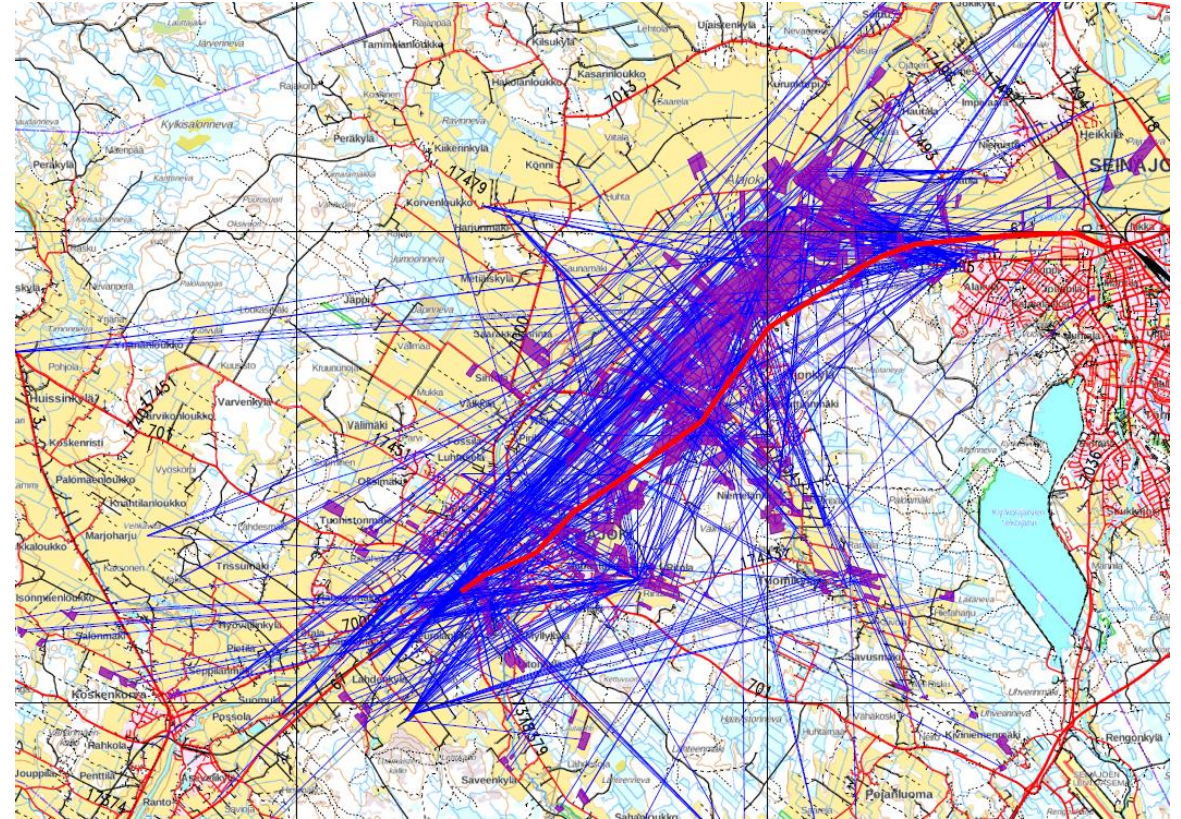- only marginally land use planning information

- owner data

Add value when used with other databases like

- topographic and land use data

- soil data

- forest data

Multiple Effects of Land Consolidation

- Decreasing production costs of farms not the only goal

- Good examples projects that affect e.g.
  - carbon emissions
  - traffic safety
  - vitality of the region.

- The benefits to the farmers, society and environment come hand in hand.

Straight-line distances from farm centres to their fields. You need to use the main road with an average daily traffic of 10 000 vehicles.

Keeping Track on Land Use Changes – and Carbon Emissions

- Joint undertaking: Finnish Environment Institute, NLS, Natural Resources Institute Finland, Finnish Food Authority, Finnish Forest Centre (Jan 2021 – summer 2022)

- Improve the knowledge base describing land use and its changes for planning, decision-making, and reporting

- Create a common operating model for organisations producing land use information enabling regular monitoring of land use and its changes using data from different actors

2021 first time that the land-use sector was carbon negative

Conclusions

- The cadastral data can be a part of the solution in many sectors
  - economy, logistics, land-use, infrastructure, emergency…
- When
  - data is of high quality, accessible, interoperable…
  - there is cross-sectoral cooperation
  - there is broad understanding of the possibilities