Key Registers in Finland and some views of Cadastre 2035

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Contents of Presentation

- Structure of Key Register System
- Land Information System
- Population Information System
- Further Development
- Finnish Cadastre in the Future
Finland

- Area 338,417 km², of which
  - 10% is water area,
  - forests 77%,
  - farmland 8% and
  - built area 4%.
Statistics of Finland

- 5.4 million inhabitants
  - 15.8 inhabitants per km² (40.5 per square mile)
- 2.7 million real estate units
- 2.6 million buildings and dwellings
- 0.6 million enterprises and corporations
- 3.7 million vehicles
Components of Multipurpose Cadastre

(USA, NRC 1980)

- Title and Fiscal Records
- Administrative Records
- Natural Resources Records
- Other Land Records

- Linkage Mechanisms
- Cadastral Overlay
- Base Maps
- Geodetic Reference Framework
Further digital cooperation between authorities - Swedish e-delegation

First level: Business area, built environment

Second level: Information exchange between authorities

Third level: IT-infrastructure

Cadastral formation  Geodetic network  City planning

Property register

Mapping and imagery
# Fit-for-Purpose Land Administration

## Key Principles

<table>
<thead>
<tr>
<th>Spatial Framework</th>
<th>Legal Framework</th>
<th>Institutional Framework</th>
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<tbody>
<tr>
<td>• Visible (physical) boundaries rather than fixed boundaries</td>
<td>• A flexible framework designed along administrative rather than judicial lines</td>
<td>• Good land governance rather than bureaucratic barriers</td>
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<tr>
<td>• Aerial / satellite imagery rather than field surveys</td>
<td>• A continuum of tenure rather than just individual ownership</td>
<td>• Holistic institutional framework rather than sectorial silos</td>
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<tr>
<td>• Accuracy relates to the purpose rather than technical standards</td>
<td>• Flexible recordation rather than only one register</td>
<td>• Flexible IT approach rather than high-end technology solutions</td>
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<tr>
<td>• Demands for updating and opportunities for upgrading and on-going improvement</td>
<td>• Ensuring gender equity for land and property rights.</td>
<td>• Transparent land information with easy and affordable access for all (WB 2016 Wash. D.C.)</td>
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Key Register

Definition:

- National information system that identifies the basic units of society. These basic units include natural persons, communities, buildings and real properties.
Key Register System 2016

• Integration of register data using IDs and position as links
• 300 million handovers per year
Key Register

- Characteristics:
  - Social significance, coverage, connection of registration numbers (identifiers), harmony, usability and data security.
  - The main characteristics are coverage and reliability. Coverage means that the register is ubiquitous and includes all the register units and their official identifications.
  - Reliability is based on the fact that it is the authorities’ responsibility to maintain the registers.
  - The Key Registers are ICT-based and linked together.
  - All data from the Key Registers is available through interfaces. Part of the data is available also in web portals.
Land information system LIS

- Cadastre
  - NLS and 75 municipalities update the register
  - NLS maintains the register
  - One common register since 2005
    - Nationwide coverage
    - Both land and water areas

- Land Register
  - NLS has updated and maintained the register since 2010

- Other Agencies' data
  - Land use plans (municipalities)
  - etc.
Cadastre

• Contents of Cadastre
  • Property division
    • Incl. shares in common areas
  • Connected rights
    • Easements, usufructs, land rents
  • Cadastral index map
    • Register units, their identifiers and boundaries
• Part of data has negative and positive faith and credit
  • The State is obliged to pay compensation for errors in the Cadastre that are the consequence of decisions taken in cadastral surveys since 1 July 1985.

Future: three-dimensional laser scanning updated and coordinate-based cadastre
Time dimension, crowdsourcing, real estate tax values included
Land Register

- Nationwide coverage
- Contents of Land Register
  - Titles
  - Mortgages

- All data has negative and positive faith and credit
  - The State of Finland can be obliged to pay compensation for any errors

Future: Cadastre and Land Register are one ubiquitous register with several interfaces to other databases
Population information system

- Population Register Centre and local register offices update and maintain the system

- Basic information related to the identification of people (Personal data) and buildings (Building data) is registered in the Population Information System

- The most frequently used key register in Finland
Personal data

- Name
- Personal identity code (person ID)
- Address
- Citizenship
- Native language
- Family relations
- Date of birth (and death)
Building data

- Building code
- Location
- Owner
- Area
- Facilities and network connections
- Intended use
- Year of construction

In the Future: Better compatibility with the Cadastre Digital Register of Housing Associations
Other parts of system

- Trade Register
  - Enterprises
  - Corporations
    - Including housing associations

- Topographic Database
  - Maps of Finland are based on the Topographic Database.
  - Up-to-date information on terrain and the built-up environment
    - Power lines, water areas, place names, address data, road data, contour, etc.

- Purchase Price Register
  - Real property conveyances since the early 1980s
Future Cadastre

- Accurate, Coordinate-based, Digitised
- Ubiquitous; incl. all easements, right of ways etc.
- Integrated
- 3–4 dimensioned
- Crowdsourcing, internet of things – smart cities
- Building Information Modelling BIM
- Utility Mapping – digital underground visualisations
- Open Access – balanced with individual privacy

(source: Lesley Arnold WB 2016 Washington D.C.)
More information

www.nls.fi