Base Registers as a Part of e-Government in Finland

Presentation for FIG International Seminar e-Land Administration

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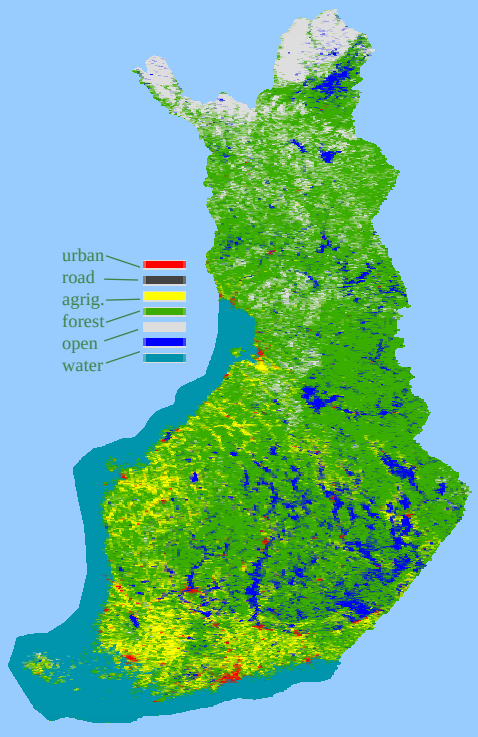
Facts and figures of Finland

- land area 304 530 km²
- water area 33 615 km²
- total area 338 195 km²

- population 5,2 million
- 17 inhabitants per km²
- 67 % live in towns
- 444 municipalities

- 187 888 lakes
- 179 584 islands

- 2,1 million cadastral units
- 5,0 million parcels



Content of Presentation

- On the development of the Information Society in Finland
- The strong points, problems and challenges
- e-Government in Finland
- Definition of the Base Registers
- Indentifiers of the Base Register Units
- Computerisation of the Base Registers
- Interconnection of the Base Register Data
- Applications of Interconnection
- Integration of the Base Registers with other Registers
- Development of the LIS and its Service
- The Role of the Base Registers in Information Society and e-Government

Development at the Information Society

- Development has been strong
- Background factors
- Private and public sector
- Some factors may slow down development
- A central challenge is to maintain Finland among the leading Information Societies

Strengths

- Cooperation between the public and private sector
- A strengthening of the information economy
- High educational level
- Telecommunications networks and services
- Information technology is extensively utilised in both the private and public sectors
- Comprehensive library network
- Mobile communications
- Location information covering the whole country

Problems and weaknesses

- Scarcity of resources
- Application software industry and content production still under development
- The dependency of economic growth on one branch
- Recruitment problems of trained personnel in the information sector
- The regional imbalances of the information sector
- Low level of entrepreneurship
- The position of small and medium-sized enterprises

Challenges

- The flexibility and social dimension of the Information Society
- The capacity of the educational system and the direction of the education
- Network commerce forms a challenge to enterprises and business life
- Regional development
- Information management and the change in the operating environment from the point of the employee

e-Government in Finland

- The Policy Decision of the Council of State on Electronic Communication, the development of services and decrease in the collection of information (MF 9/00/98)
- The Act on Electronic Service in the Administration (1318/1999)
- The Identity Card Act (829/1999)
- The Contact-information directory of public administration JULHA(http://www.julha.fi)
- etc.

Definition of Base Registers

- Registers are national systems that identify the basic units of society.

- Basic units are:
- physical persons
- enterprises and corporations
- buildings and
- real estates

Data Contents of the Base Registers

- Official identifier for every registered object
- Descriptive data about each object
- Relations between objects

Characteristics of the Base Registers

- Nation wide coverage
- Reliability
- Versatility
- Data protection
- Prescribed by law or statute

Systems Fulfiling as the Base Register´s Definition

- Personal Information System
- Business Information systems
  - Business Register
  - Enterprise Mortgage Register
  - Register of Enterprise and Establishments
  - Association Register
  - Foundation Register
- Land Information System

Identifiers of Base Register Units

- Natural Persons
  - ID = ddmmyy ◗ xxxz, where

    ddmmyy indicates the birth day and

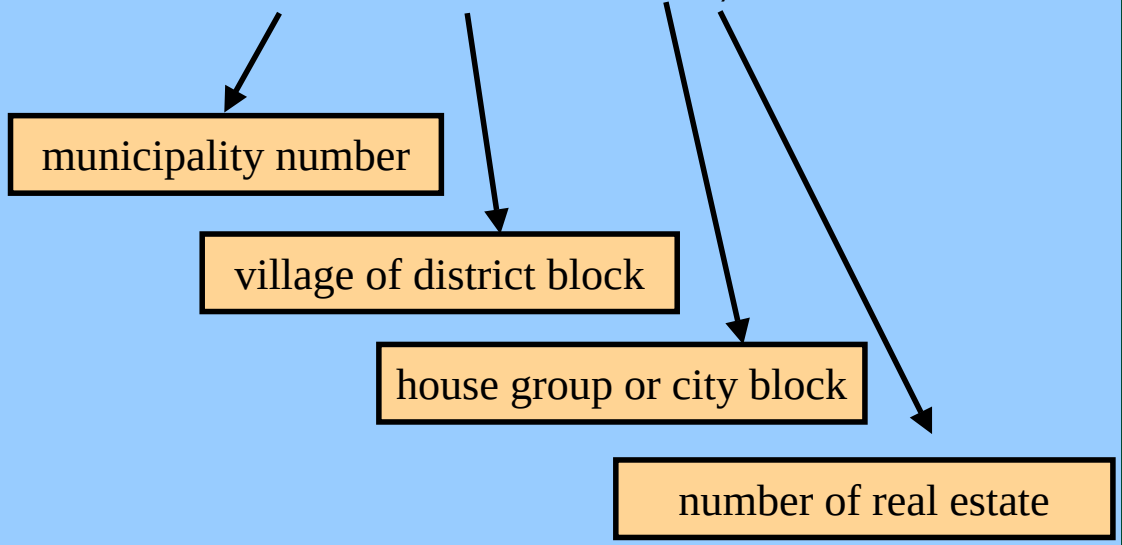
    ◗ a character indicating the century + 1800, - 1900 and A 2000

    xxx is a surrogate identifier

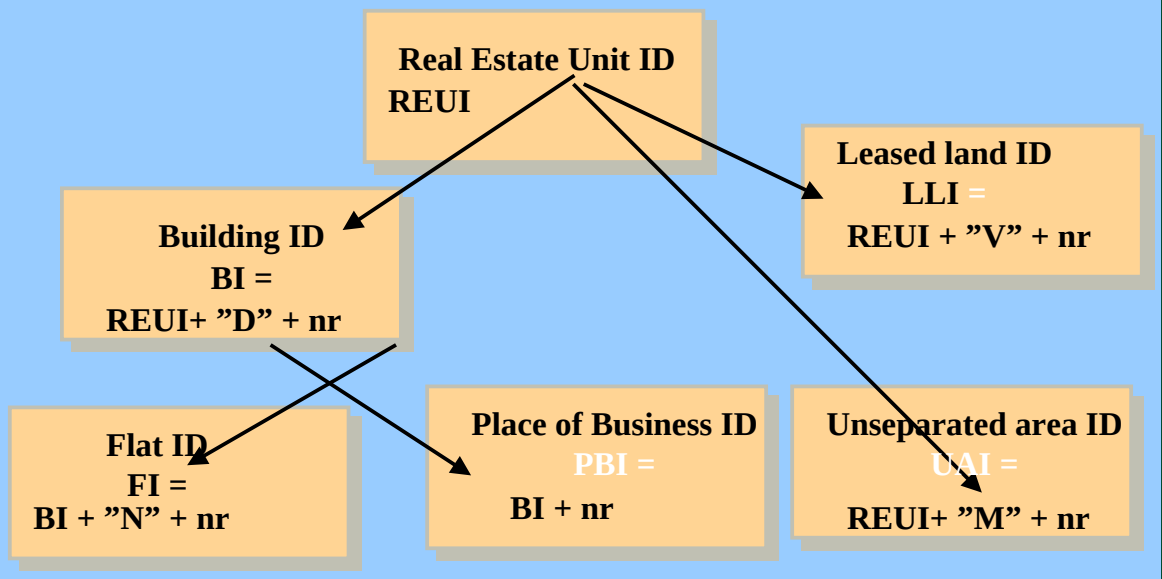
    z is a control character

ID of Real Estate Unit

- **REUI = XXX – XXX - XXXX – XXXX,**



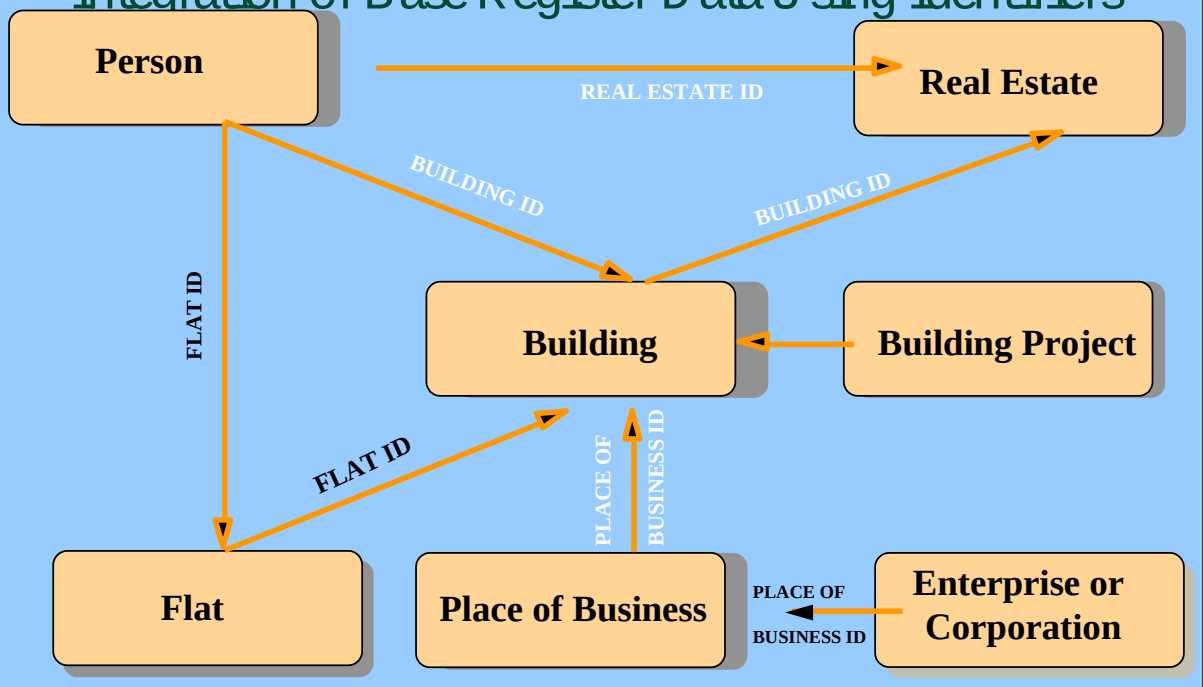
Identifiers derived from the RealEstate ID



Computerisation of the Base Registers

- Computerisation started in the early 1970s on population, buildings, business and taxation information systems
- Computerisation of the Cadastre started in 1980 and the Land Register in 1985
- The Land Information System that is comprised of the Cadastre and the Land Register implemented in 1985 – 1998
- Now part of the systems have already been revised, the rest are in design phase in order to introduce the second generation systems in production

Integration of Base Register Data Using Identifiers



Problems Associated with IDs

- The identifiers of real estates change relatively often
  - new units born in surveys
  - changes of administrative divisions cause changes in real estate identifiers
- Identifiers derived from real estate ID must be changed accordingly
- These problems can be coped, however

Applications of interconnection

- Census is the most important application

  - two decades censuses have been taken without form-based data collection

  - censuses are cheap when registers are used; those are taken annually

  - costs using data collection from registers are about ca 2 % compared with those based on form-based data collection

Information Services

- In order to avoid the most of data collections from several registers, the Population Register Centre updates a collection of the most essential data from the Base Registers
- Special integration applications have to collect the needed data from original registers

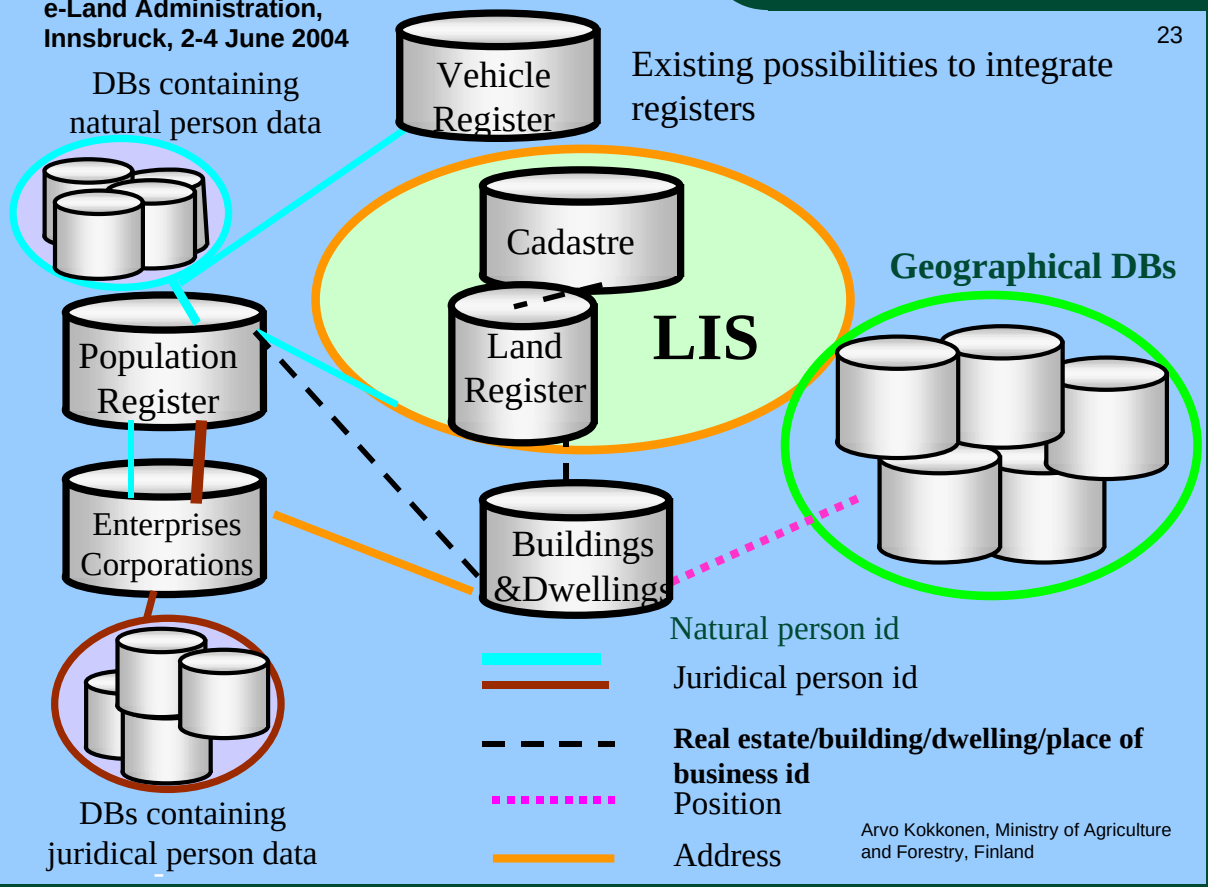
Development of the LIS and its Services

- The exsisting LIS is 19 years old and design of the next generation solution is going on
- New features of the next generation
  - cadastral index map into data contents of the Cadastre 1.6.2005
    - user map interface
    - GIS-based operations
    - data consitency between spatial and attribute data can be guaranteed
  - description of land use rights and restrictions as spatial objects can be realised; relation to real estate units by spatial dimension

Influence of the LIS Development

- Inclusion of the spatial component increases possibilities to integrate other systems using spatial dimension as a link.
- In Finland there are over 300 GISs available.

Existing possibilities to integrate registers



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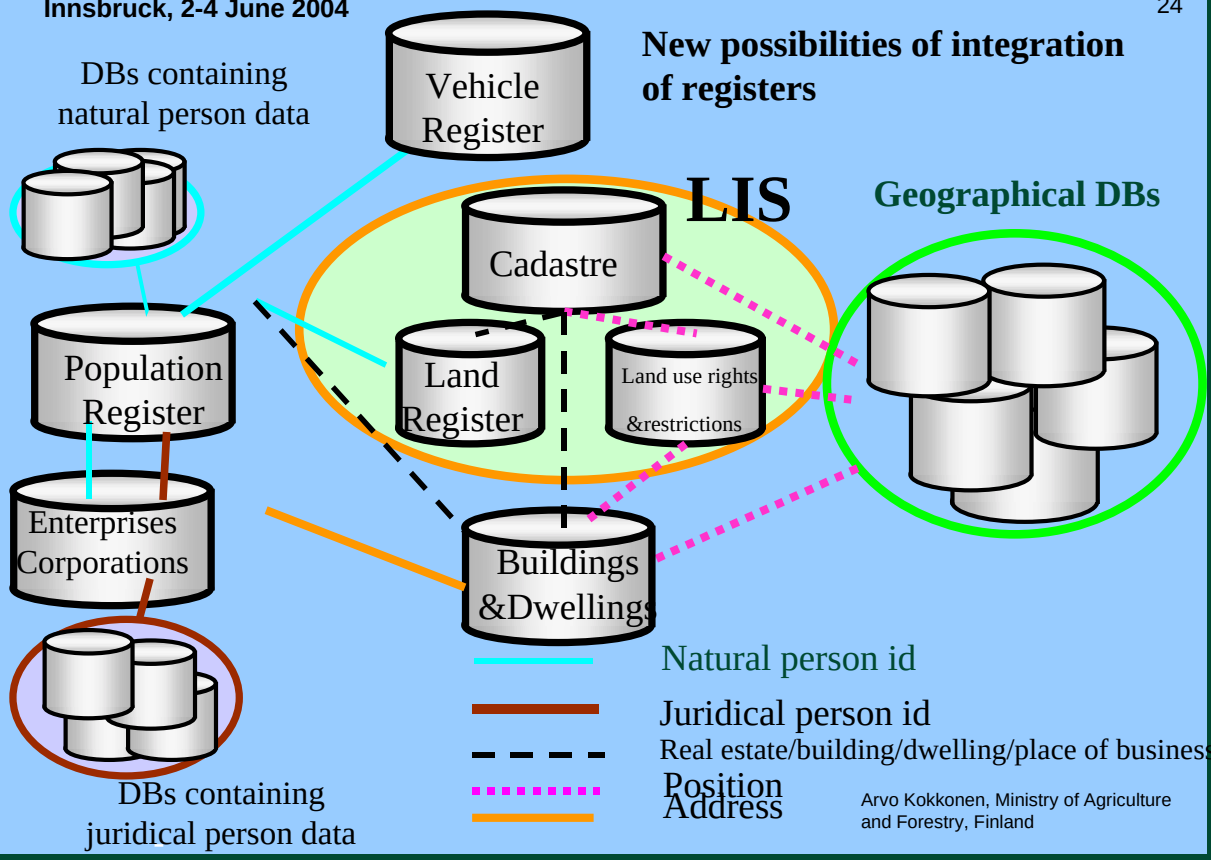
New possibilities of integration of registers



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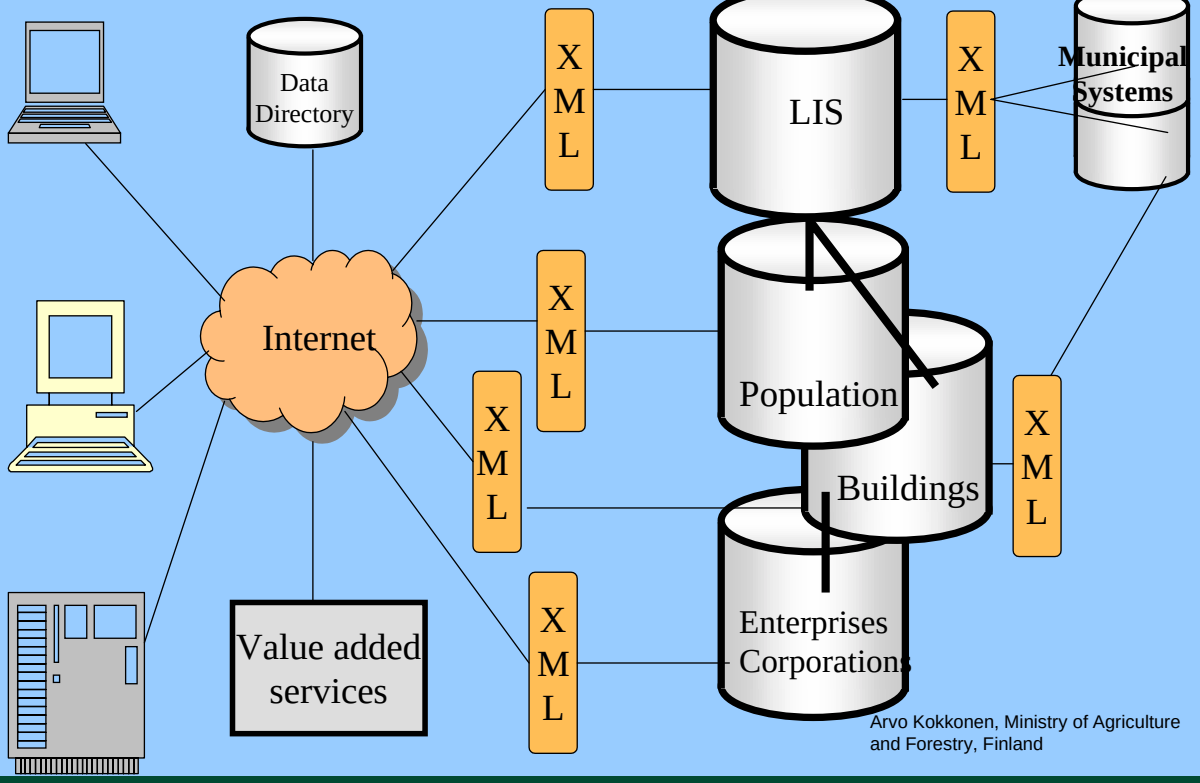

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The Role of Base Registers in the Information Society and e-Government

- Registers are essential both for the public administration and private sector
  - quality of data can be guaranteed
  - up-to-date data always available
  - integration of data from different registers is every day practise
- Base Registers are fundamental for the information infrastructure of society

The Role of Cadastre

- The Cadastre is one of the Base Registers
- Many indentifiers of base register objects are generated from real estate identifier

  - the key for integration of objects using identifiers as relations
- The spatial description of real estates provides the opportunity to integrate real estates and objects inside them with other GISs
- ➢ The Cadastre is of vital importance and connects usually as non spatially described objects (persons, enterprises, corporations) into the national SDI

Motto:

- ”e-Government is more about government than about e”

- Thank you for your interest!