CADASTRE – CORNERSTONE OF A FUNCTIONING NATIONAL ECONOMY

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• Some facts
• Scene
• 3D real estate registration
• Residential Property Information System
• 3D buildings in Topographic Database
FACTS ABOUT FINLAND

• 5.5 M, population
• 2.8 M, real estate units
  • 20 000 cadastral surveys
  • 320 000 titles and mortgages
• 790 Bn €, value of real estates (est. 2012)
• 530 Bn €, value of mortgages in LR (2017)
• 2.6 M, buildings and dwellings
• 0.6 M, enterprises and corporations
THE SCENE

• Traditional 2D registration
• Separate agencies for individual base registers
  • Population Register Centre
    • people, buildings, apartments
  • Patent and Registration Office
    • companies, enterprises, legal persons
• NLS
  • Cadastre and Land Register
CORNERSTONE

The Cadastre and Land Register have a solid history of trust in the society.
3D PROPERTY FORMATION

- First discussions 2004
- Formal proposal to the MAF 2005
- Ministry working group 2006-2007
- NLS projects 2011-2018
- New legislation Aug 1, 2018
3D Cadastre
- New law August 1, 2018
- On Cadastral Index Map the cadastral units, that are located above and under the base cadastral unit are described with different colors
- 3D City GML file is stored in Smallworld database
DIGITAL RESIDENTIAL PROPERTY INFORMATION SYSTEM

• LLHC (Limited Liability Housing Companies) the most common way of housing in urban areas
  • ~1,5 M apartments in ~100 000 LLHCs
  • Resemble limited liability company
• LLHCs are registered in the Trade Register
  • Trade Register information available country-wide
    • Articles of association
• Information about apartments and owners is managed in LLHCs
• Share groups (1 to N shares) giving tenure to specific apartment are tradeable
• One printed share certificate per share group
MAIN GOALS OF NEW REGISTER

• Improve services on LLHC-related information
  • Availability
  • Credibility (consistency)
  • Timeliness
  • Coverage

• Enable digital services for
  • Trade
  • Collateral management
  • LLHC life cycle management
  • Management of LLHC information (e.g. maintenance)
3D BUILDINGS IN TOPOGRAPHIC DATABASE

• Data collection for the NTDB is performed by several organizations
  • Bigger cities produce their own 3D-models
  • NLS produce 3D-models from rest of the country
    • Models will correspond to LoD2

• Schedule:
  • 2019 Q4: Proof of Concept realizations of 2-4 different solutions for 3D-production
  • 2020 Q1: Tender out the implementation
  • 2020 Q2: Implementation ready
  • 2020 Q3: Testing, documentation, training of staff
  • 2020 Q4: 3D-production in NLS in progress
    • Based on point cloud data from 2020
    • 3D-buildings available nation-wide in 2026-27 (based on the schedule of the new laser scanning program)
BASE REGISTER SYSTEM

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

DBs containing natural person data
Population register

DBs containing legal person data
Enterprises & corporations

Finnish Patent and Registration Office

PIS

LIS
Land use rights & restrictions

Geographical DBs

Cadastre

Buildings & dwellings

Residential Property Information System

NLS NATIONAL LAND SURVEY OF FINLAND

Natural person ID
Juridical person ID
Real estate buildings / dwellings / business ID
Position
Address
MORE CORNERSTONES

• Evolving legislation, roles, processes, and data systems
• Digital real estate conveyancing
• 3D-real estate units, below ground and in buildings
• 3D-buildings in topographic database
• Residential Property Information System

Drive land and buildings closer together enabling the C & LR to, in an increasing scale, support the economic activities in the country.
SHOWING THE WAY