E-governance in cadastral and land management need a new theoretical paradigm

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Published in:
Shaping the change

Publication date:
2006

Document Version
Publisher's PDF, also known as Version of record

Link to publication from Aalborg University

Citation for published version (APA):
e-Governance in Cadastral and Land Management Need a New Theoretical Paradigm

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“New winds” are changing

- the era of the “parcel-orientated” chartered surveyor is ending.
- new SOA-technologies will force governmental bodies to rethink and redesign their models
- the citizen will ask for one portal to access all information about his property.
- and strengthened the long-term focus on e-governance
  (SOA = Service Oriented IT – Architecture)

Standardization in a changing world

2007-reform” of State and Municipal bodies will strengthened the implementation of

- Governmental reorganization and modernization (2000) “placing the citizen in the centre”
- Political focus since 2002 to reduce cost and manpower on public administration.
- E-Government as a road to institutional reorganizing public bodies and structures.

Focus on Management Domains

- The next – but already available database technology – will focus on management domains in e-Governance and not on institutional structures.
- Every profession and organization need to rethink their objects and procedures pressed by the need in communication, IT-architecture (SOA) and globalisation.
Property information is Spatial Data Infrastructure and an independent, coherent domain of knowledge and management

- Location
- Ownership
- Use and Buildings
- Restrictions and Protection
- Taxation
- Mortgage

Chartered Surveyors' competence is Property - design - development - change - registration.

Ejendomsinformation er infrastruktur og et selvstændigt, sammenhængende vidensdømne- og forvaltningsområde

- Ejendomsinformation er data om fast ejendom
- Belægning
- Besiddelse
- Bemyndelse og bebyggelse
- Beskyttelse og bevaring
- Beskatning
- Beskrivning

Landinformation er infrastruktur og et selvstændigt, sammenhængende vidensdømne- og forvaltningsområde

- Landinformation about Real Estate

- Location
- Ownership
- Use and Buildings
- Restrictions and Protection
- Taxation
- Mortgage

Landinspektør- kompetence er Ejendoms - Design - Udvikling - Ændring - Registrering

Use and buildings

- Location
- Ownership
- Use and Buildings
- Restrictions and Protection
- Taxation
- Mortgage

Institutions and communication

Use and buildings

Property register with information about actual owner of full ownership (title), owner of partial rights (positive and negative easements)

Location: Property register with information to identify property in the building as an object, size (parcel-building) and the boundary lines against other property (identification and position of boundaries). To guarantee the existence and to manage change in size and design.

Planning documentation with purpose and possibilities for buildings and land.
Property information is Spatial Data Infrastructure and an independent, coherent domain of knowledge and management

**Institutions and communication**
- Location
- Ownership
- Use and Buildings

**Restrictions and Protection**
- Property register with information about restrictions on use of property, parcel and buildings.
- Planning documentation describing forbidden activities and rules regulating this.

**Taxation**

**Mortgage**

**FIG 2006 Shaping the Future**

Property information is Spatial Data Infrastructure and an independent, coherent domain of knowledge and management

**Institutions and communication**
- Location
- Ownership
- Use and Buildings

**Restrictions and Protection**
- Property register with information about valuation of the property components (parcel, building, resources) for taxation and information about signed sales prices.

**Taxation**

**Mortgage**

**FIG 2006 Shaping the Future**

Property information is Spatial Data Infrastructure and an independent, coherent domain of knowledge and management

**Institutions and communication**
- Location
- Ownership
- Use and Buildings

**Restrictions and Protection**
- Property registers with information about mortgage loans and economic rights and registered debt on the property.

**Taxation**

**Mortgage**

Chartered Surveyors competence in Property - design - development - change - registration

**FIG 2006 Shaping the Future**

"Socio-economic functions" for Property-Registers in Society

**Yields from Citizens (Ownership and Public authorities as Tax on real estate and Duty on location based consume (ex. Mortgage, Electricity, energy & c.)**

**Institutions and communication**
- Location
- Ownership
- Use and Buildings

**Restrictions and Protection**
- Taxation

**Mortgage**

**Transfer of income from Public Authorities to Citizens and Enterprises as Grants and subsidies for individual Enterprise Heritage Nature Social welfare**

**FIG 2006 Shaping the Future**

The details in regulation and procedures are national and institutional history

- The institutional structures, division of labour, level of technology penetration in the property registers is historical and national influenced by tradition of management.
- In the future domain-oriented focus on the basic element in the function to secure this - not to maintain existing institutional related management procedures.

**FIG 2006 Shaping the Future**
The Property Information Domain

- Land Use and Geo-Environment Registers
- Location
- Ownership
- Use and Buildings
- Restrictions and Protection
- Taxation
- Mortgage
- Cadastral Register
- Land Book
- Spatial Planning Register
- Cross-Reference Register
- Building and Housing Register
- Property Valuation Register

The Property Information Domain – Actually 4 Ministries involved

- Location
- Ownership
- Use and Buildings
- Restrictions and Protection
- Taxation
- Mortgage
- Responsible Minister
- Environment
- Justice
- Environment, Agriculture, Economy
- Environment, Culture, Economy
- Finance
- Justice

The Property Information Domain – actual and complex digital roads to information

- Databases (1st and 2nd generation - RDMS)
- Geographical indexing in WEB-GIS (2D)
- SOA-architecture ("single sign-on" and userportals)
- Navigating in 3D-environment with intelligent spatial legal objects on thin clients.
- After 2014 ………?

The development of technology – cadastral indexing

- "Letter and numer" with books and papermaps
- Databases (1st and 2nd generation - RDMS)
- Geographical indexing in WEB-GIS (2D)
- SOA-architecture ("single sign-on" and userportals)
- Navigating in 3D-environment with intelligent spatial legal objects on thin clients.
- After 2014 ………?

Point 1

Chartered Surveyor competence is

- PROPERTY
  - Design,
  - Development
  - Change
  - Registration

Representing an independent, coherent domain of knowledge and management
Point 2
• Access to property information for citizens, managers, stakeholders and data owners will be based on their functions.
• Managing the rights of access to information is an issue of high importance and will challenge the structure of the governmental bodies.

Point 3
Cadastral surveyors have to rethink and replace themselves as:
• as important SDI-managers
• in a more "profitable" place in the value-adding process of property development
• as key role players in social balanced and sustainable use of land and nature-resources

Point 4
• The Discussion on the Core Cadastral Model 2004 is still not reflecting the Service Oriented Architecture and the integration towards Spatial Data interaction with other area than with the Cadastral Sector.

Thanks for your attention