



DIGITAL TRANSFORMATION FOR RESPONSIBLE LAND ADMINISTRATION

FIG Commission 7 & 2 Annual Meeting 2023

2-4 October 2023, Deventer



Prominent Themes and Challenges in Comparing Cadastral Systems

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Digital Transformation for Responsible Land Administration

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Need for comparison

- Many cadastral systems are in need of an update, and comparing and evaluating is a useful tool to improve cadastral system
- Most comparison has focused on cadastral systems in general, or emerging systems
 - > We propose a framework for **comparing and evaluating mature cadastral systems** based on a literature review
- In this presentation, we focus on our findings when applying the framework to the cadastral systems of Finland, the Netherlands, Sweden, Lithuania, Denmark and New Zealand

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The framework

1. 3D Land administration

- Limitations, scope, etc.
- Integration to 2D data

2. Temporal cadastre

- Temporary features in the register
- Historical data

3. Multipurpose cadastral system

- Registration of RRR
- Utilities and networks
- Taxation, land use planning



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4. Quality and interoperability

- Up-to-dateness and reliability
- Responsibility for mistakes
- Interoperability with other systems

5. Institutional environment

- Roles of public and private sector
- Funding

6. Users and services

- External users
- Access to data
- Services based on cadastral data



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Difficulties in comparing systems

- Differences in definitions, for example:
 - When registering real property, what is actually registered?
 - Is apartment registration a form of 3D property registration?
- Lack of centralized knowledge:
 - When comparing systems, who should we ask for information?
 - When data is distributed openly, who knows how it is being used?
 - When the end user is separated from the data provider, how do we best serve everyone's needs?



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Conclusions

- To properly understand cadastral systems, the operational environment should be included in comparisons
- To avoid misunderstandings based on semantic differences, special attention should be paid to definitions
 - "Are we all on the same page?"
- External users of cadastral data should be included in comparisons for comprehensive view on systems



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Thank you!

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