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Towards Enhanced Evaluation and Comparison of Mature Cadastral Systems

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Need for evaluation and comparison

- Many cadastral systems are in need of an update
 - Comparing and evaluating is a useful tool to improve cadastral systems
 - A lot of comparison has focused on cadastral systems in general, or emerging systems
- > We propose a set of themes to consider when evaluating and comparing mature cadastral systems

Approaching cadastral systems: two sides to consider

Information contents

What kind of information is stored in the system?

How accurate, up-to-date and reliable is the information?

Operational environments

Who is responsible for maintaining the system?

How is the system funded?

Who are the users of the information?

Themes for information contents

3D registration

- Is there a possibility of 3D registration?
- How is it combined with the 2D data?
- What limitations are there?
- How widely is 3D registration used?

4D cadastre

- How well is the system equipped to deal with temporal nature of land?
- Can changes over time be viewed?

Rights, restrictions, and responsibilities

- What kind of RRR is registered and what is not?
- How accurately are they defined spatially?

Information content related to wider society

- Are utility networks, power lines, etc. registered in the cadastre?
- What kind of role does the cadastre have in taxation?

Up-to-dateness and reliability

- How up-to-date is the information?
- How reliable is the information?
- Who is responsible for potential mistakes?



Themes for operational environments

Institutional environment

- Who is responsible for the cadastral system?
- What are the roles of private and public sector?
- Is there involvement from political institutions?

Interoperability

- How does the cadastral system exchange information with other key registers and data sources?
- Do the different systems share property identifiers?

Users and distribution

- How can external users access the data store in the cadastral system?
- Who are the most prominent users of the data, what are their needs?
- What kind of services are offered based on the cadastral data?



Conclusions

- To comprehensibly understand cadastral systems, both the system itself and the operational environment it functions in should be evaluated
- We opted for an extensive set of themes to describe systems in their entirety, instead of intensive focus on few themes
- Future development should be monitored to keep the themes up to date