



INITIATING THE DEVELOPMENT OF A LADM II-BASED COUNTRY PROFILE

Jing Sun, KTH Royal Institute of Technology

Jesper M. Paasch, University of Gävle, Aalborg University

Jenny Paulsson, KTH Royal Institute of Technology

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Introduction

- The Swedish real property register, administered primarily by the Swedish Mapping, Cadastral and Land Registration Authority (Lantmäteriet).
- This system is underpinned by robust legal frameworks such as the Swedish Land Code (Jordabalken) that governs the regulations related to land ownership, leases, easements, and other property rights.
- Public access to land information through online platforms and services.
- As the initiation step, this paper will not implement a full LADM II-based Swedish country profile, mainly focusing on the administrative aspects.

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Challenges in Swedish Land Administration

- **Key Challenges:**

- Urbanization: Increased demand for space and more complex property rights.
- Interoperability: Lack of seamless data exchange across stakeholders.
- 3D Spatial Data: Need for integrating 3D land records.
- Legal Barriers: Institutional challenges and slow digitization of records.

LADM-based Country Profiles

- 40+ countries have reported and/or developed LADM-based country profiles, including the Netherlands, Malaysia, Greece, Korea and Turkey.
- Three-Phase Approach (Kalogianni et al., 2021):
 - Phase I: Scope definition.
 - Phase II: Profile creation (modelling).
 - Phase III: Profile testing (implementation).
- Initial steps in creating a LADM II-based country profile for Sweden, focusing on rights, restrictions, and responsibilities (RRRs).

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LADM I

- What is LADM?

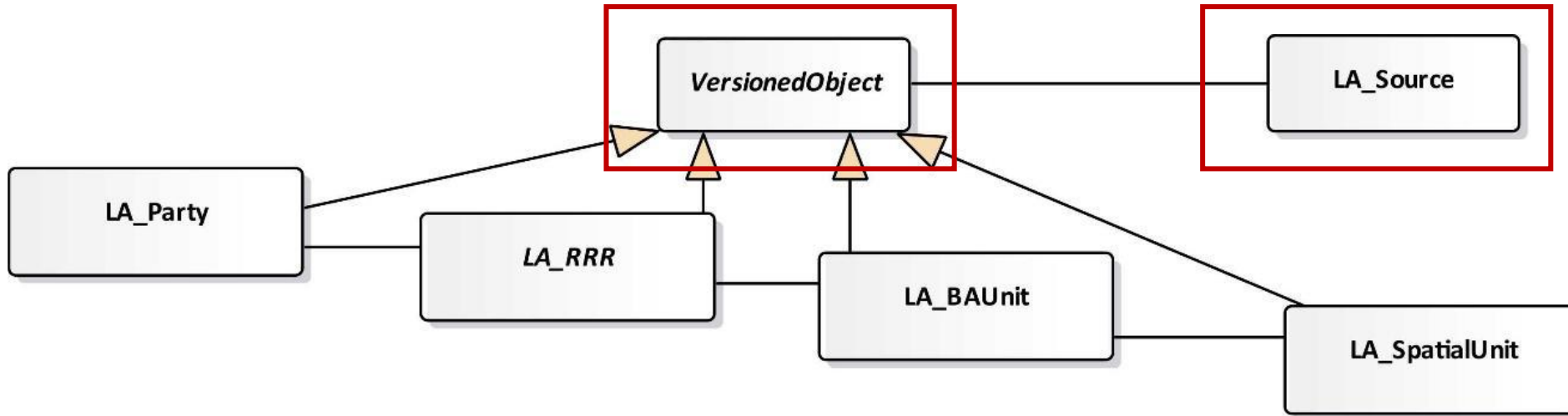
A standardized international framework for land administration modeling.

- Key classes: LA_Party, LA_RRR, LA_SpatialUnit, LA_BAUnit.

LADM II

- LADM Edition II:
 - Expands scope: Marine georegulation, 3D representations, valuation models.
 - Focus on interoperability and data integration.
 - builds on the original framework, incorporating additional classes and refining existing ones to better capture the complexities of modern land administration.

Why LADM-II country profile?



- **Versioning Flexibility:** beginLifeSpanVersion
- **Enhanced Source Versioning**
- **Legal and Compliance Benefits**
- **Data Interoperability**

Conceptual Modelling

- Focus on Phase I: Analyzing current Swedish land administration and its RRRs.
- Research methodology:



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Scope of The Model

- The entire scope of the Swedish LADM-II based country profile is to describe both the current situation and the future situation that will evolve with the development of the LADM II packages to further develop spatial plan, marine cadastre, valuation model, and underground cadastre etc.
- In this paper, we will only focus on the RRRs of the current Swedish Real Property Register.

Current Swedish Real Property Register

- Sweden's Real Property Register:

An official record of land division, ownership, buildings, and property tax.

- Key Sections of the Register:

1. General information
2. Land register
3. Address
4. Buildings
5. Tax assessment data

- The Swedish government is currently proposing to modernize the existing Real Property Register legislation, replacing it with two new laws, initially named ***Real Property Data Act*** and ***Real Property Register and Electronic Provision Act***, planned to be implemented July 1st 2026.

RRRs in Sweden

- The central provisions regarding ownership and use of land are the Land Code and the Real Property Formation Act
- Other provisions are e.g. the Utility Easements Act, the Joint Property Units (Management) Act and the Joint Facilities Act.
- The classification: based on the RRRs registered in the Real Property Register and described in the Real Property Registration Ordinance.
- The major RRRs are joint property unit, site leasehold, joint facility, easement, public road right utility easements, and historical rights.
- It should be noted that the Land Code does not exclude air and water from the concept of land.

LADM II Customization for Sweden

- Customization Needs:
 - Adjust the LADM II framework to match Sweden's legal and institutional landscape.
 - Incorporate 3D property rights and cross-border land issues.
 - Align with Sweden's Real Property Data Act and digital transformation goals.

Conclusion & Future Work

- The legal basis for the future content and structure of the register is yet unsure
- Important to align the model with the upcoming modernization of the Real Property Register legislation in order to follow the proposed legislative changes and their impact on the components of a possible LADM model for Sweden.
- Next Steps:
 - Full implementation of LADM II-based country profile for Sweden.
 - Include marine cadastre, underground property, and other advanced models.
 - Prepare for changes from 2026 legislative updates.

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Thank you for your attention!

Jing Sun, KTH Royal Institute of Technology

jingsun@kth.se