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## Research Contributions towards Guidelines for Land Administration

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# **Research Contributions towards Guidelines for Land Administration**

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**Spatial Information Management for Sustainable Real Estate Market -  
Best Practice Guidelines on Nation-wide Land Administration,  
Athens, May 29 - 30, 2003**

## Overview

1. The research activity *Modelling Real Property Transactions*
2. Comparing subdivision procedures (FIN, SLO, DK)
3. Approaching the cadastral core: Alternative views
4. Long-term capacity building: Need of university staff positions
5. Terminology: Describing a non-English reality in English terms
6. Conclusion: Suggestions for a new edition

## **Objectives of G9: Modelling Real Property Transactions**

The main objective of the *action* is to

improve the transparency of real property markets  
and to provide a stronger basis for the reduction of costs of real property transactions  
by preparing a set of models of real property transactions,  
which is correct, formalised, and complete according to stated criteria,  
and then assess the economic efficiency of these transactions.

## Participants and mode of financing

01/03/2001

- Austria
- Denmark
- Germany
- Netherlands
- Spain
- Slovenia
- Finland
- United Kingdom
- Sweden
- Hungary
- Latvia

**COST: Co-op.. in Sci. and Tech. Research**

- Support of co-ordinated European research
- Participating countries pays research
- COST pays co-ordination;  
recast into ESF
- <http://costg9.plan.auc.dk/>

Surveyors,  
knowledge engineers, lawyers, economists

14/06/2001

## 2. A semi-formal description of subdivision - Denmark

Activity	<b>Subdivision recorded by Cadastral authority</b>
Context	Owner sells a parcel, e.g. for construction
Actors	Cadastral surveyor, Owner, Cadastral authority, Holders of right, Land Registry, Municipality
Trigger	Owner requests the service of the cadastral surveyor
Sub.activities	Details: 1 .. 9
Variations	2., 4.

Structure: UseCase of UML (Unified Modelling Language)

## **The Danish case - Sub-activity details**

1. Request accepted and filed
2. Data collected from Cadastre, Land registry, and Municipality  
Strategy for the specific case chosen
3. Boundaries and parcels established, marked and measured
4. Case approved with respect to spatial planning, etc.
5. Case submitted to Cadastral authority
6. Case approved by Cadastral authority. New unit created
7. Statement on allocation of easements to Land Registry
8. Parties informed, and fee to cadastral surveyor paid
9. Documents (cadastral map of parcel) to owner

## Comparing with Finland and Slovenia

- Finland: Subdivision part of purchasing of new unit  
Denmark: Subdivision precedes purchasing process  
Slovenia: Somewhere between
- Finland and Slovenia: Formal meeting, followed by report  
Denmark: Cadastral surveyor assesses need of neighbour approvals
- Finland (surveyor represents authority): Decision; Appeal  
Denmark (practising surveyor): Decision only in a specific case type  
(Danish: 'Skelforretning'); court case



## Methodology

- Comparing activities (behavior), not legal texts
- No case studies, but procedures as they are taught
- UseCase-prototype for one country copied in 2-5 other countries  
SLO, FIN, DK, Hungary, Turkey, NL
- Modelling of classes started
- Cost estimates
- Terminology

## **Common objectives of processes (= Institutional functions)**

Reorganise rights in land according to wishes of owners

- without compromising the rights of third parties
- in compliance with spatial, envir..., agric..., . legislation
- keeping official recordings consistent and cost effective

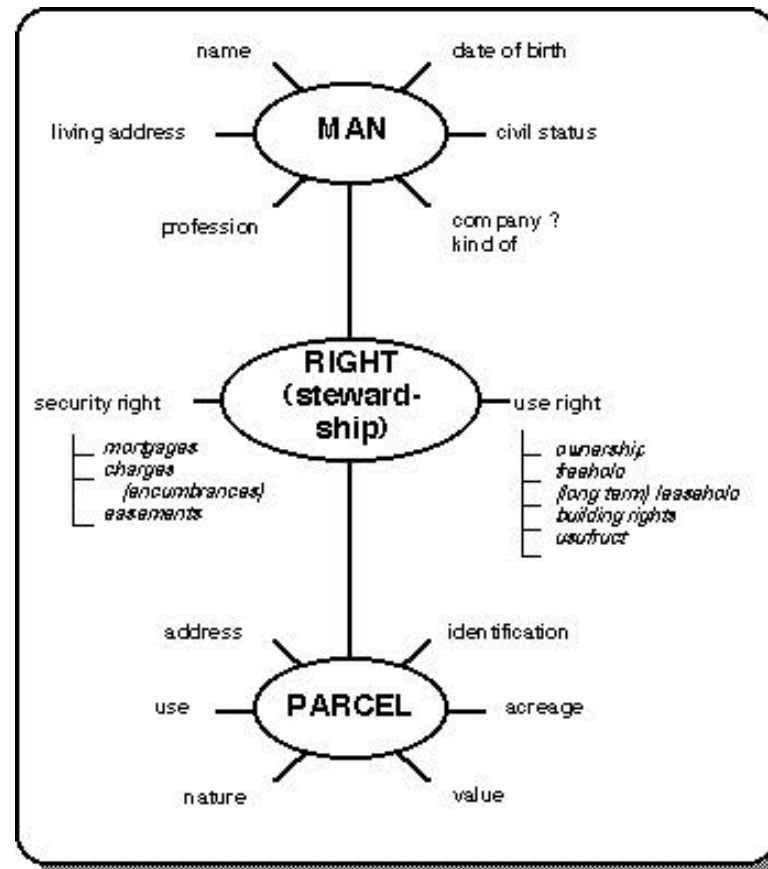
Hypothesis:

- Institutional functions are the same across countries, but means, roles and sequencing varies.
- Cadastral surveyors in Northern Europe and notaries in Southern Europe perform similar functions.

### **3. Approaching the Core of the Cadastral Domain**

- A traditional approach: Owner - Right - Parcel
- Core 'packages' of a Cadastral System
- Oosterom - Lemmen: Core Domain Model (class diagram)

## A traditional approach



J. Hensen, Delft, 1995

## **Discerning static and change situation**

The Owner- PropertyRight- Parcel structure holds in the situation, where no legal or spatial changes are made. In such situation, the cadastral system is out of focus.

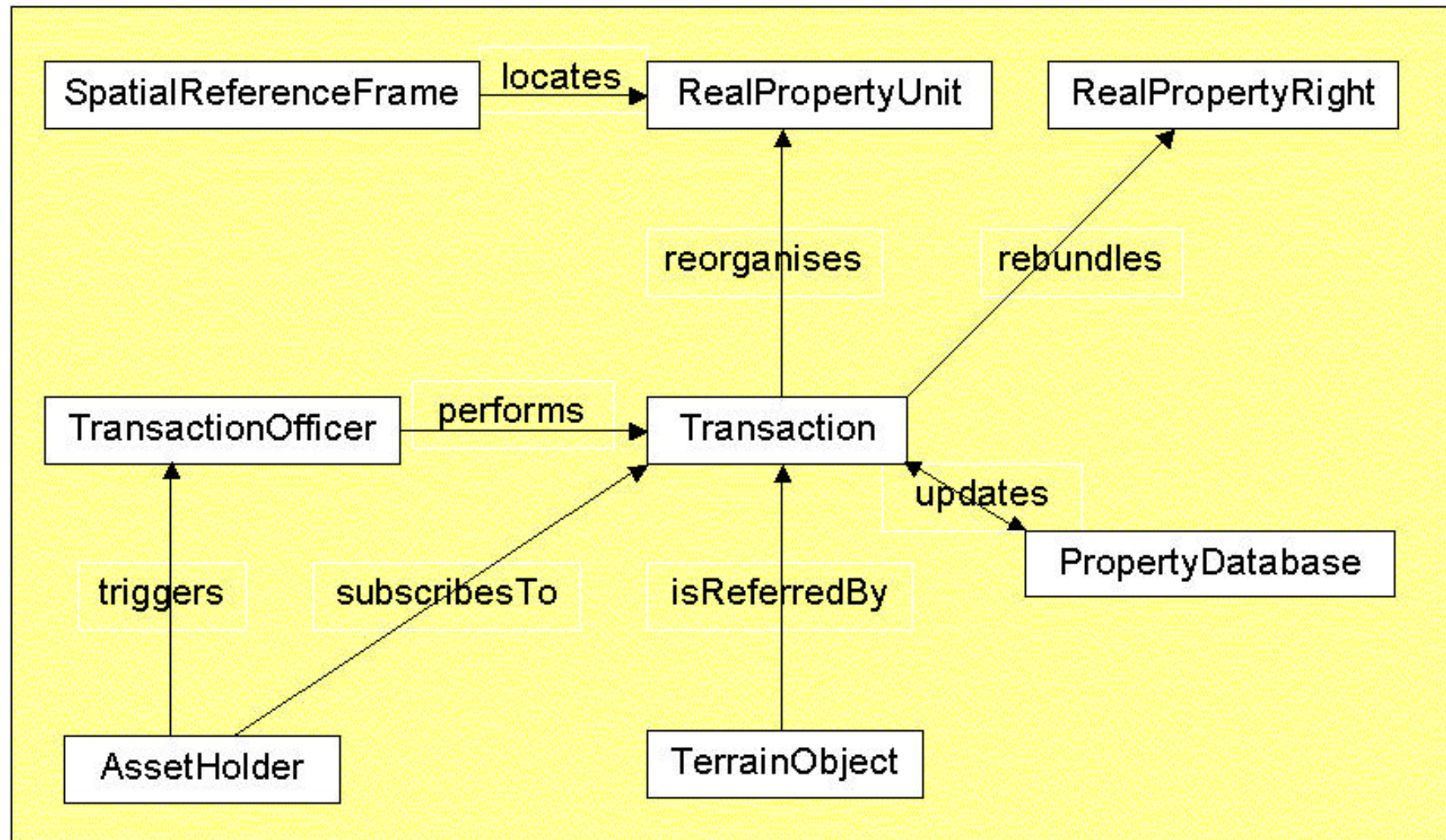
However, when Owner makes changes, either in the bundle of rights, which s/he is entitled to dispose of, and thus affecting RealPropertyRights, or in the boundaries of a parcel, and thus affecting RealPropertyUnit, or in both together, then the cadastral system comes into focus.

## Owner's legal dispositions demand a *ritual*

When Owner wants to change Rights or Object, the Owner may not be allowed 'direct access' to his RealPropertyRights, because this might compromise the rights of other parties.

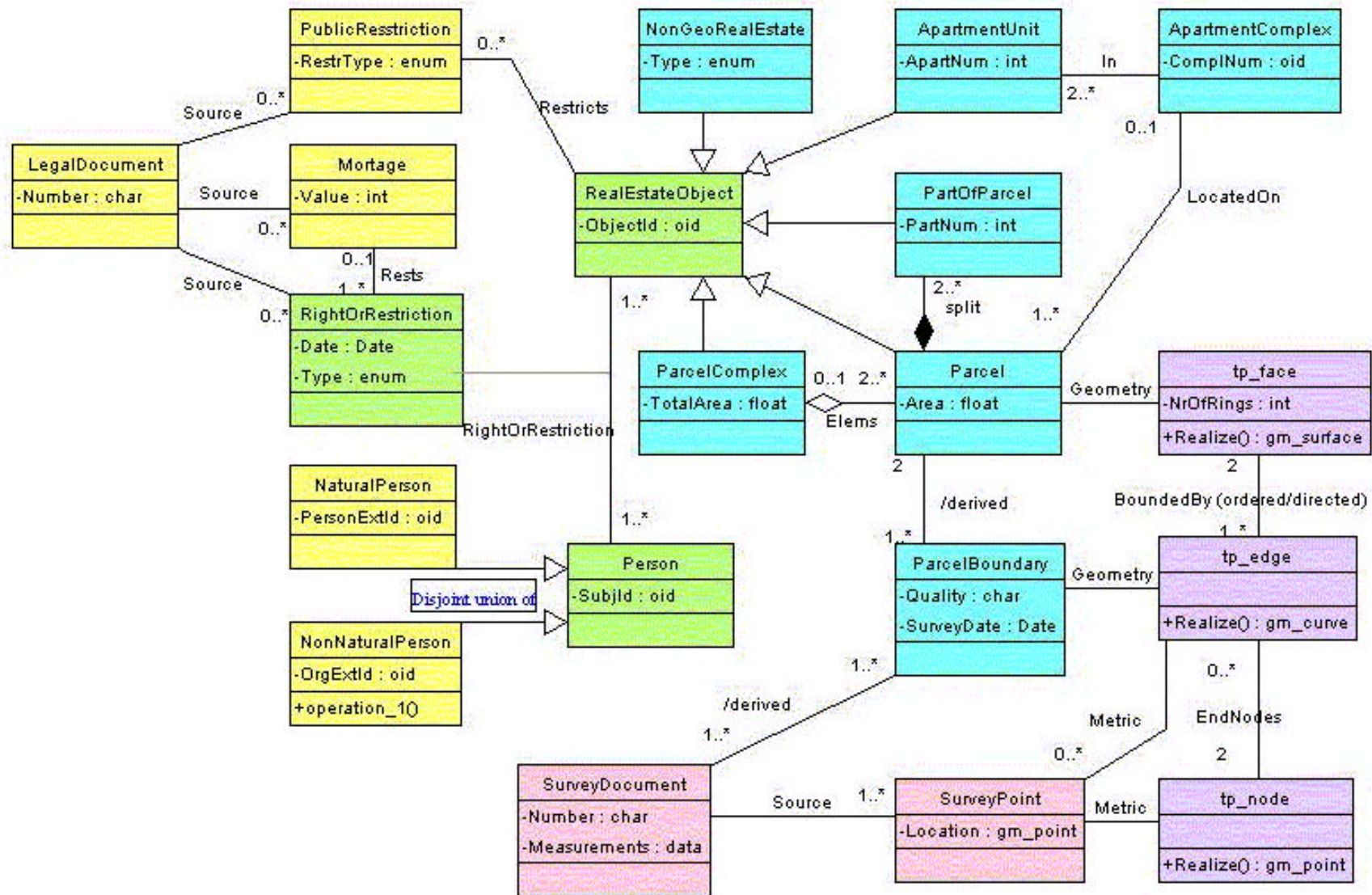
For this reason, in every society the reorganisation of real property rights is socially mediated. In the figure next, this is expressed by introducing Transactions between Owners and RealPropertyRights.

## Cadastral Core Packages





## Cadastral Core *Classes*





## Approaching the Cadastral Core

- Stubkjær, E (2003) developed in/ after dialogue with
- Lemmen, C., van Oosterom, P (2003) Further progress in the Development of a Core Cadastral Domain Model. FIG Working Week, April 13.-17., 2003. TS15.2

## **4. Long-term Capacity Building**

- Further research is needed to arrive at common Cadastral Core
- LAG mentions need of research in "cadastral data maintenance", among others (p. 57)
- Land Adm Reviews, e.g. Armenia: Capacity building a priority (180).  
Implementation of post-graduate studies and short courses needed (176 b)
- Incentives for talented graduates ??

## **European Research Networks**

- European Spatial Data Research, EuroSDR, formerly OEEPE
- COST G9: Modelling Real Property Transactions
- European Education in Geodetic Engineering, Cartography and Surveying, EEGECS
- FIG, Commission 7
- (AGILE and similar conference series)

## **Need of (more) university staff positions**

- Universities provide for long-term capacity building
- Departments often has a too technical profile
- More staff positions are needed in land administration, cadastre
- Some positions have to be professorships to enhance research

## **5. Terminology**

- English is common language
- English notion of real property differs from Continental civil law notions
- Comparative law has only recently addressed the real property issue
- New edition may address differences more explicitly

## 6. Conclusion

- Consensus on the core notion of a RealPropertyUnit or RealEstateObject of cadastral systems has been achieved; could be described in a revised edition of the Guidelines
- Related elements are addressed; research (networks) could be mentioned
- It is strongly recommended that the need of staff positions, incl. professorships, in land administration/ cadastre be given priority in a revised edition of the Guidelines.
- Terminology issues hard; some references are provided in my paper.

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