

**Presentation of COST G9:  
Modelling Real Property Transactions**

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Meeting  
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**Overview**

- Identification, Objective, Research domain
- Research questions
- Methodology
- Use of COST resources, Outcomes
- Relations to European organisations and needs

**COST action G9: "Modelling Real Property Transactions"**

Domain: Miscellaneous	01/03/2001	
MoU: 224/01	Austria	Finland
Entry Into Force: 1/03/2001	Denmark	United Kingdom
CSO Approval: 14/12/2000	Germany	Netherlands
End of Action or Prolongation: 4/06/2005	Netherlands	Sweden
1st MC: 5/06/2001	Spain	Hungary
	Slovenia	Latvia
		14/06/2001
		Greece
		6/11/2003

**COST G9: Publications**

The Ontology and Modelling of Real Estate Transactions  
(Eds) Heiner Stuckenschmidt, Erik Stubkjær and Christoph Schlieder,  
Ashgate Publisher's *International Land Management Series*. 2003.  
170 p.

Page 9 to 11 in COST G9 Progress Report 2003. 25 titles

Website: <http://costg9.plan.auc.dk>

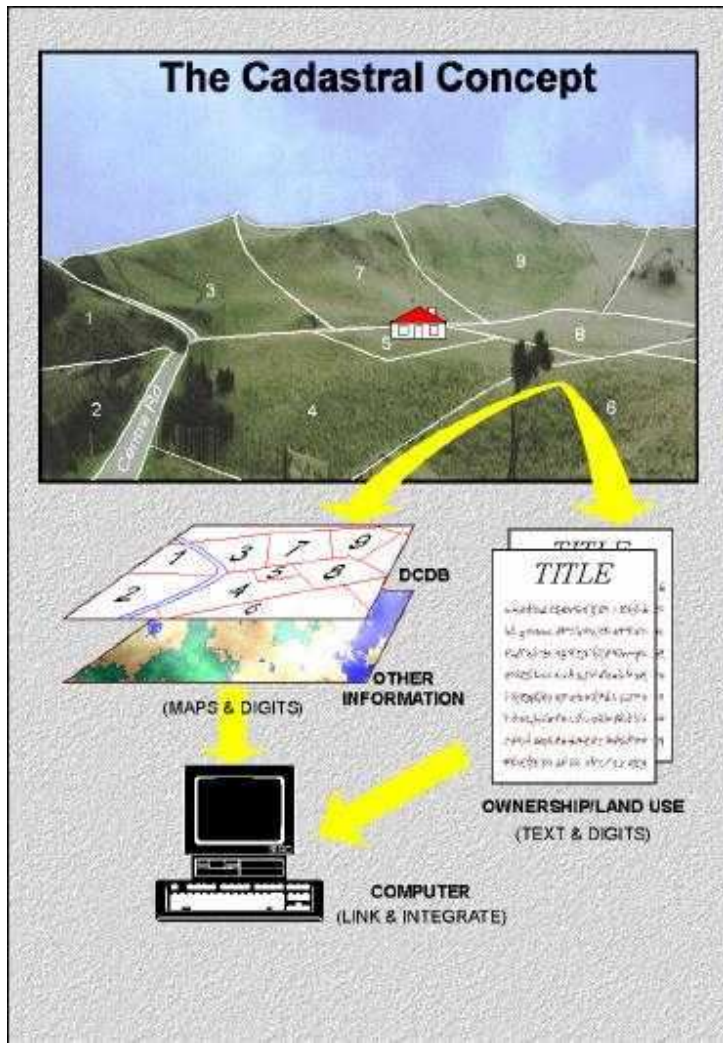
**Objective**

The main objective of the *action* is to

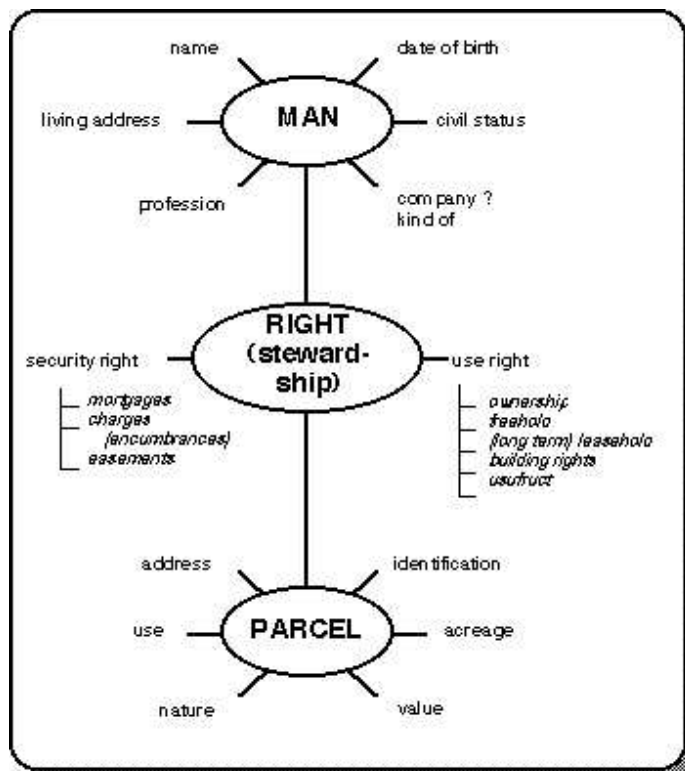
improve the transparency of real property markets  
and to provide a stronger basis for the reduction of costs of real property transactions

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.

**Aspects of the research domain: FIG's conception**



**Aspects of the research domain: Henssen's Man-Right-Land relation**



**Research questions**

- What are the costs of transactions related to real property
- What are the main transactions
- How are rights in land described
- What is a unit of real estate

Comparing across selected European countries

**Tentative definitions**

- *Transaction*: An exchange of assets according to norms
- *Procedure*: A sequenced set of activities with defined outcome. In UML the synonyme term is *Activity*
- *Asset*: A sum of money or other item of economic value, including a parcel of land.
- *Institutions* are the humanly devised constraints that shape human interaction (North, 1990: 3).
- *Function* of an element is what this element causes to happen as a desired contribution to the greater whole (Zevenbergen, 2002)

### **Methodology - Procedures**

- Comparing activities (behavior), not legal texts
- Semi-formal description of procedures (purchase, mortgaging, subdivision)
- No case studies, but procedures as they are taught
- Formal consolidation (to come)

### **Methodology - Economy**

- Comparative estimate of cost of simplest transaction (purchase of unbuilt parcel)
  - Case study in 2-4 countries
- Approaching satellite accounting (SNA, 1993) for the real estate segment of society
  - Environmental protection, education, ..., and now real estate

### **Use of COST resources**

Combined workshops and MCmeetings,  
Thursday afternoon to Saturday afternoon

- Riga, Latvia
- Helsinki, Finland,
- Sopron, Hungary, October 2003
- Delft, Netherlands, October 2002
- Vienna, Austria, April 2002
- Bremen, Germany, Nov 2001

### **Use of COST resources: Working Groups**

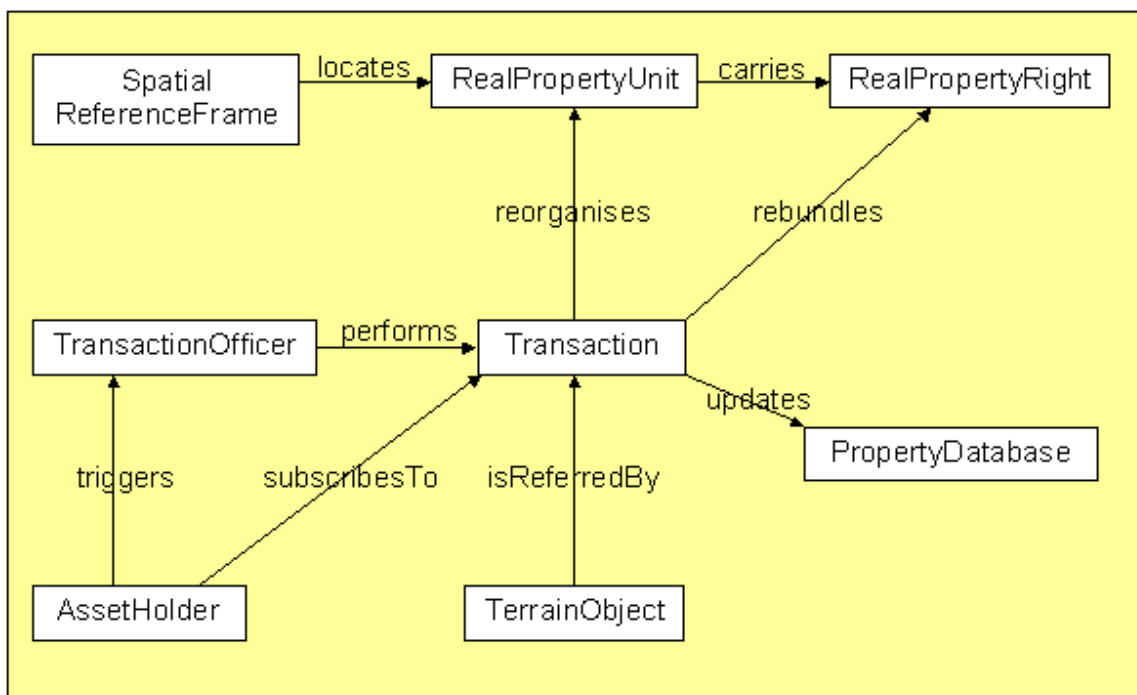
- WG1 on Law and Models Chairman: Christoph Schlieder, D
- WG2 on Cadastral Science Chairman: Jaap Zevenbergen, NL
- WG3 on Economy Chairman: Kauko Viitanen, FIN

WG3 Economy meeting in Ljubljana 11-13. March 2004

**Use of COST resources: Short Term Scientific Missions**

- Researcher: Marina Vaskovich, Belarus (Sweden), to Aalborg University, Denmark, 16-22 March 2003
- Researcher: Miran Ferlan, Slovenia, to Royal Institute of Technology, Stockholm, 14-20 April 2003
- Researcher: Jantien Stoter, the Netherlands, to Aalborg University, Denmark, 3-28 November 2003
- Researcher: Jaap Zevenbergen, the Netherlands, to Helsinki University of Technology, 3-7 November 2003

**Outcomes: Concept analysis**



Cadastral Core Packages

### Outcomes: Analysis of basic functions

Reorganise rights in land according to wishes of owners

- without compromising the rights of other parties
- in compliance with spatial, environmental, agricultural, .. legislation
- maintaining clarity and efficiency of registration

(Stubkjær, FIG, 2002)

Hypothesis: Institutional functions are the same across countries  
However, means, roles and sequencing varies.

Cadastral surveyors in Northern Europe and  
notaries in Southern Europe perform similar functions

(Arrunada, Vienna, 2002)

### Outcomes: Selected titles

- Auzins, Armand (2003) Institutional arrangements - A gate towards sustainable land use. Paper, presented at Workshop on 'The Commons in Transition: property on natural resources in CEEC', Prague, April 11-13, 2003
- Steffen Bittner and Andrew U. Frank (2002) A formal model of correctness in a cadastre *Computers, Environment and Urban Systems* 26 (5) 465-482
- Lemmen, CHJ, Molen, P van der, Oosterom, PJM van, Ploeger, HD, Quak, CW, Stoter, JE & Zevenbergen, JA (2003) A modular standard for the cadastral domain. Pp. 399-419 in: Konecny, M et al. (Eds) Proceedings of the 3rd international symposium on digital earth: information resources for global sustainability. Brno.
- Stubkjær, E. (2003) Modelling units of real property rights, pp. 227 - 238 in Virrantaus et al.: ScanGIS'03 Proceedings, 9th Scandinavian Research Conference on Geographical Information Sciences. Espoo, Finland.
- Zeevenbergen, Jaap (2003) The Dutch system of land registration -Title registration with a 'privatized' registrar. Paper, presented at EULIS Seminar on Conveyancing Practices, 15-16 May 2003, Lund, Sweden.

### Relatons to European, etc. organisations

- EuroGeographics: Heads of Topographic Mapping Agencies
- WPLA: Heads of Cadastral Agencies (mutual presentations at Delft and Athens)
- The European Mortgage Federation (mentioned in EOI)
- Notaries?
- (Development agencies: GTZ, SIDA,..)

**Relations to European Research Area**

- Call EOI.FP6.2000: Network of Excellence: Modelling Real Property Institutions. The EOI was formally recorded
- EULIS project aims at developing a European Land Information Service (Zevenbergen presentation)
- JRC, Ispra, Unit on Remote Sensing (Mail 21-02-2003 from simon.kay@jrc.it)

**Conclusion**

COST G9 has made a difference

- Before: Little and fragmented research
- Now: Emerging body of knowledge, which is attracting PhDs and MScs

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Thank you !