

Validation of agent based land use models

Introduction workshop Arnold Bregt



Outline workshop

- Introduction
- Approach
- Questions



Introduction

- Focus on:
 - Agent based land use models
 - Validation



Agent based land use models

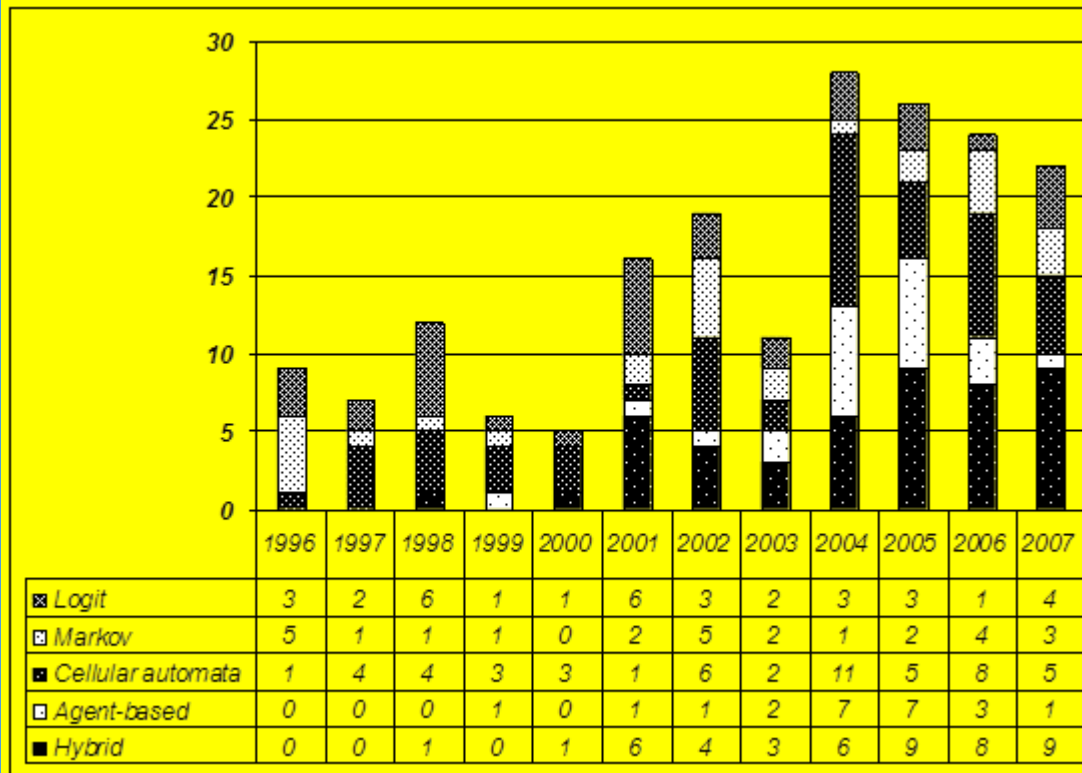
- Land use models have long history
- World wide used in support of policy making and planning
- Land use is a function of: (core principles)
 - Land suitability
 - Historical use (path dependency)
 - Actors decisions
 - Neighbourhood interactions



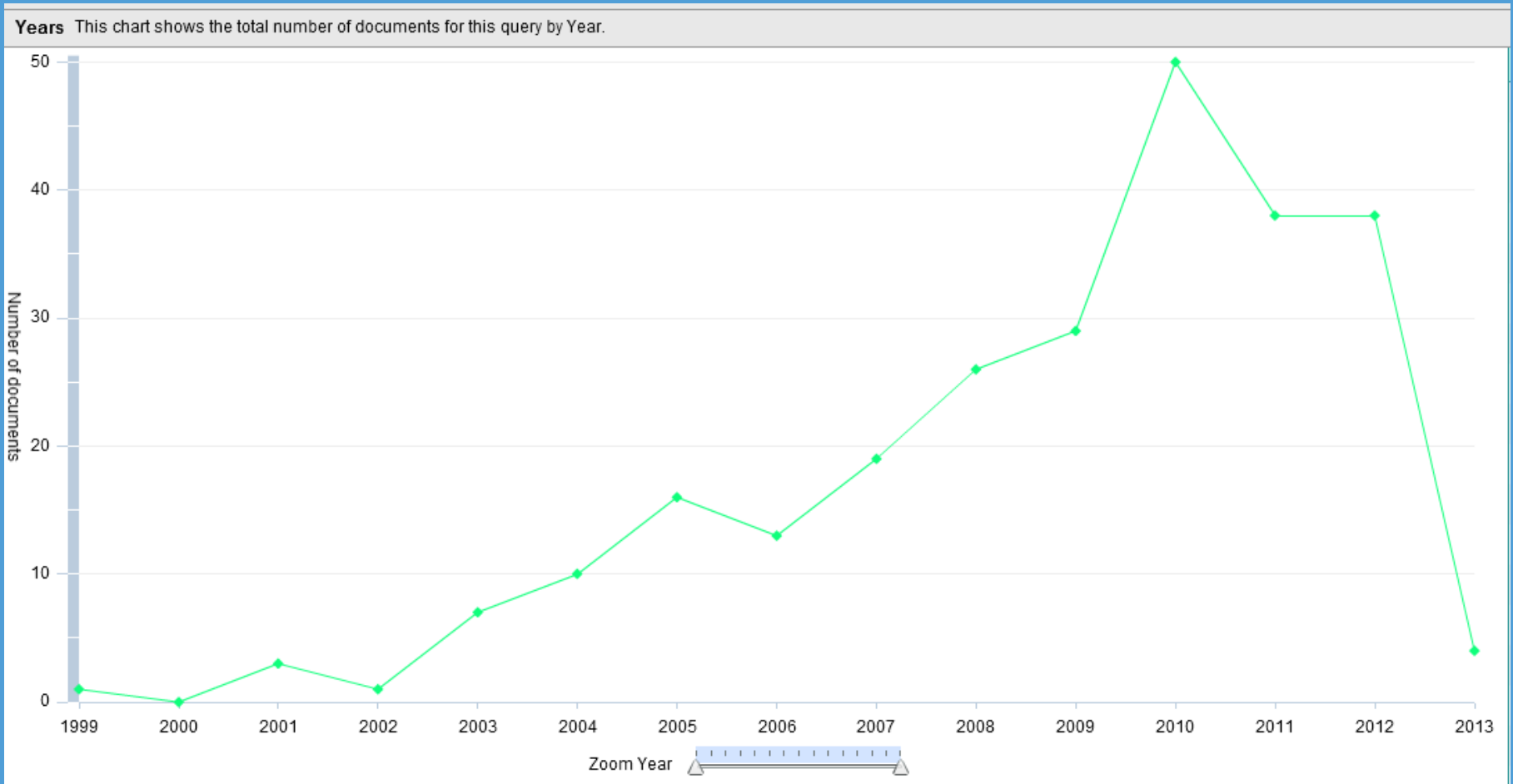
Large variety of modelling approaches

- Cellular Automata
- Statistical Analysis
- 2nd Order Markov Analysis
- Artificial Neural Networks
- Economical models
- Expert-based Decision Rules
- Agent-Based Modelling
- Micro simulation
- Individual Based Modelling
- Multi-Agent Systems
- Activity-Based Modelling





Agent based AND Land use



Validation

- Validation of models is important
 - Credibility
 - Acceptability

- But how do we validate them?

- Just a few questions as input for the workshop.



Validation questions

- How is validation defined?
 - generic or specific (fitness for use)
- What do we validate?
 - output, process, input, concepts, patterns
- How do we validate?
 - face validation, statistical evaluation, Role play, ..



Approach

- The programme is divided 4 presentation/discussion blocks.
- Presentation of about 20 minutes
- Followed by a discussion on:
 - Issues related to the presentation
 - More generic aspects



Questions

- Can agent based models be validated?
- What is the meaning of validation in the context of agent-based land use models?
- What are methods/approaches for validation of agent-based land use models?

