

Presented at the FIG Working Week 2016,
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The Comprehensive Cadastre supports Recovery from Disaster

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Agenda

DISASTERS HAPPEN

WHAT IS A COMPREHENSIVE CADASTRE?

STRUCTURE OF THE COMPREHENSIVE CADASTRE

PRECONDITIONS FOR THE COMPREHENSIVE CADASTRE

STEPS TO IMPLEMENT A COMPREHENSIVE CADASTRE

SUCCESSFULLY

THE COMPREHENSIVE CADASTRE SUPPORTS DISASTER
RECOVERY

DISASTERS HAPPEN AND CREATE TREMENDOUS DAMAGE





THE 6 STATEMENTS OF CADASTRE 2014

Statement 1 – Cadastre 2014 will show the complete legal situation in land, including public rights and restrictions.

Statement 2 – The separation between maps and registers will be abolished.

Statement 3 – Cadastre Mapping will be dead – long live modelling

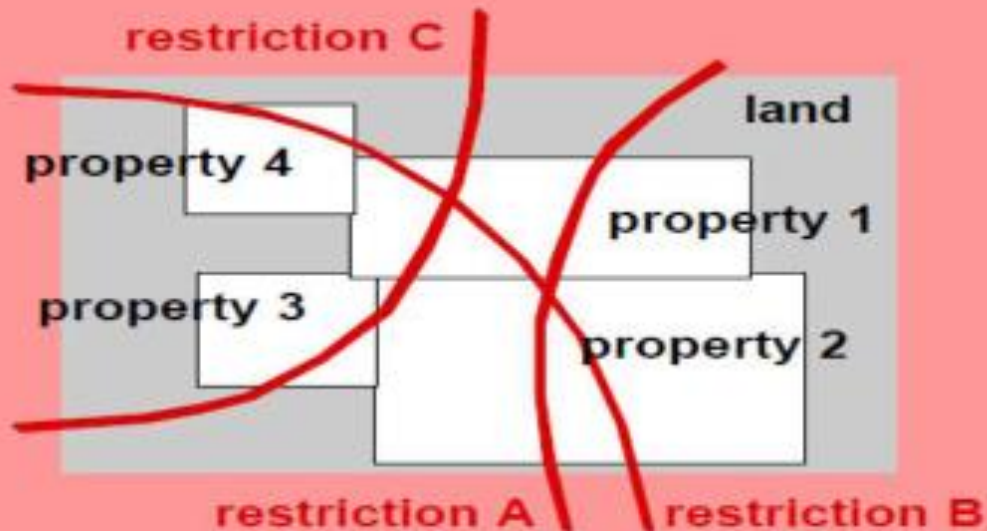
Statement 4 – Paper and Pencil Cadastre will have gone.

Statement 5 – Cadastre 2014 will be highly privatized! Public and private sector working closely together.

Statement 6 – Cadastre 2014 will be cost recovering.

Statement 1 on Cadastre 2014

Cadastre 2014 will show the complete legal situation of land, including public rights and restrictions!



Comment: The population of the world is growing. The consumption of land is increasing. The absolute control of the individual or of legal entities of land is increasingly being restricted by public interest. To provide security of the land tenure, all facts about land must be made obvious by the cadastral system of the future.

Consequences: A new thematic model is necessary. Surveyors must take into consideration public law.

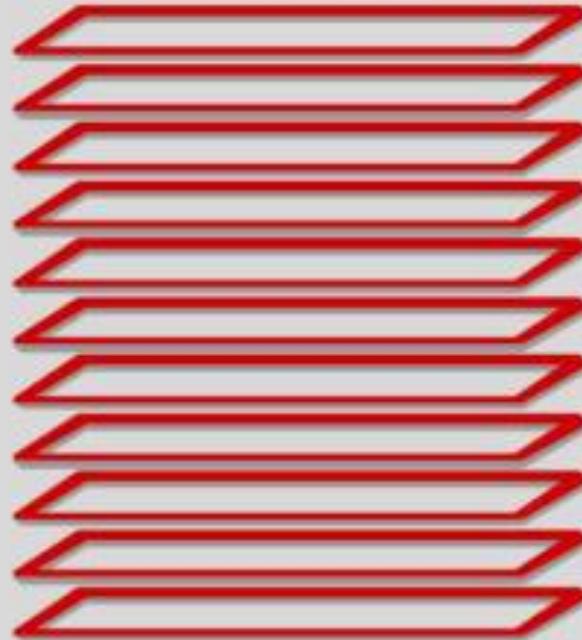
The principle of legal independance

Legal Topics:

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- Resource exploitation
- Collective land rights
- Water protection
- Traditional rights
- Environmental protection
- Land use planning
- Land property
- Topography
- Natural resources
- Natural land objects

Legal Object Boundaries:

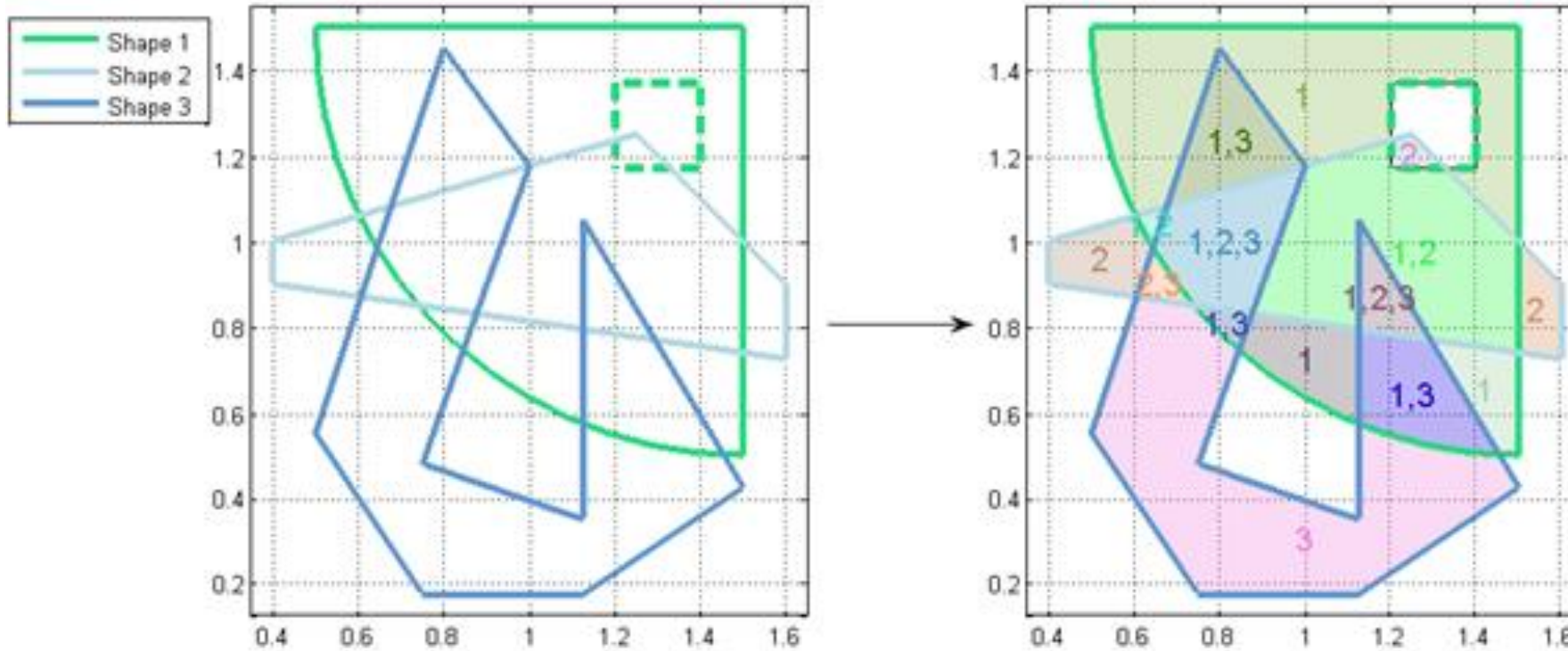


Rightful Claimants:

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- Chartered company
- Corporation
- Society
- Tribe, Clan
- Society
- Society
- Private Land Owners
- Society
- Society
- Society

Determination of relations between land objects



Shape 1 = Land parcel
Shape 2 = natural hazard zone
Shape 3 = groundwater protection zone

arithmetically determined parts of parcel:
1,2 and 1,2,3 in natural hazard zone
1,3 and 1,2,3 in groundwater protection zone

Switzerland: Content of the Ordinance on The Cadastre of public-right Restrictions of the Landownership

Section 1:	General provisions
Section 2:	Content and Information
Section 3:	Inclusion into the Cadastre
Section 4:	Forms of Access
Section 5:	Authentication
Section 6:	Function as official gazette
Section 7:	Organization
Section 8:	Financing
Section 9:	Participation
Section 10:	Final Provisions

Switzerland Cadastre on Public.Law Restrictions (PLR-Cadastre)

Art. 16 Subject matter and form

1 The Cadastre of public-law restrictions shall contain public-law restrictions on landownership rights which, in accordance with the provisions of the Civil Code, are not part of the Land Register.

2 The Federal Council determines which official geodata under federal legislation are entered in the Cadastre of public-law restrictions.

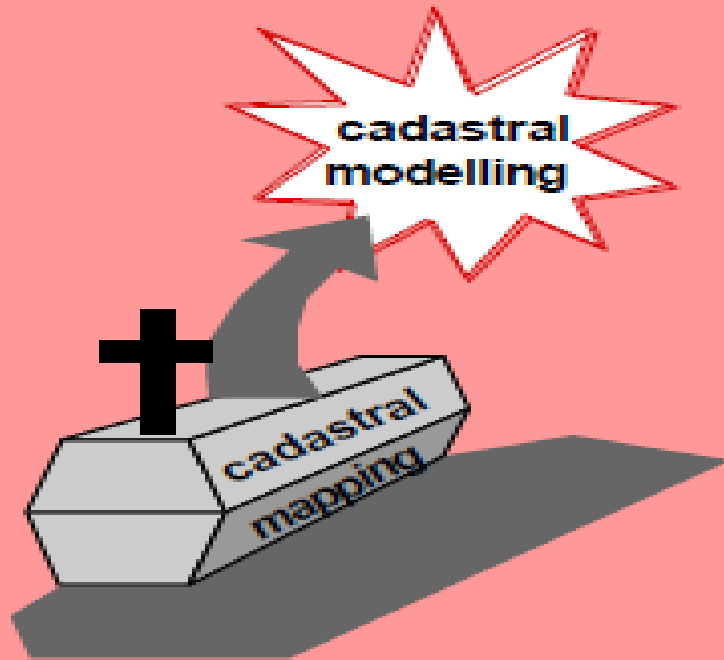
3 The cantons may define additional official geodata of proprietary nature that must be recorded in the Cadastre of public-law restrictions.

4 The Cadastre of public-law restrictions shall be made available in electronic form either online or by any other method.

5 The Federal Council shall determine the minimum requirements with regard to the organisation, management, data harmonisation, methods and processes for the Cadastre of public-law restrictions.

Data modeling for the Comprehensive Cadastre

Statement 3 on Cadastre 2014



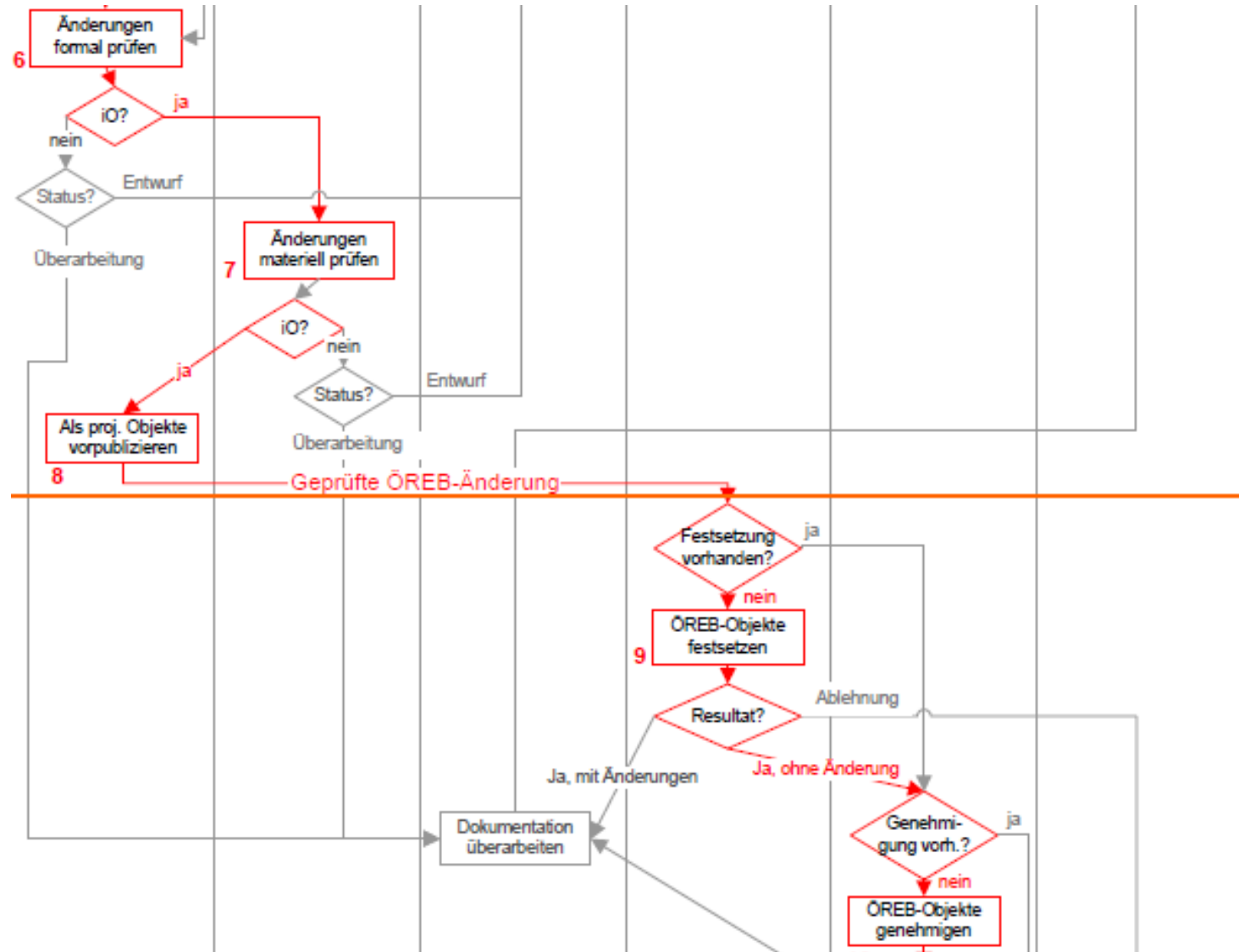
**The Cadastral mapping will be dead!
Long live modelling!**

Comment: Maps have always been models, but the available technology did not allow for the use of these models in a flexible manner. So in mapping flexibility had to be brought in by different scales. Different scales had to be represented by different data models.

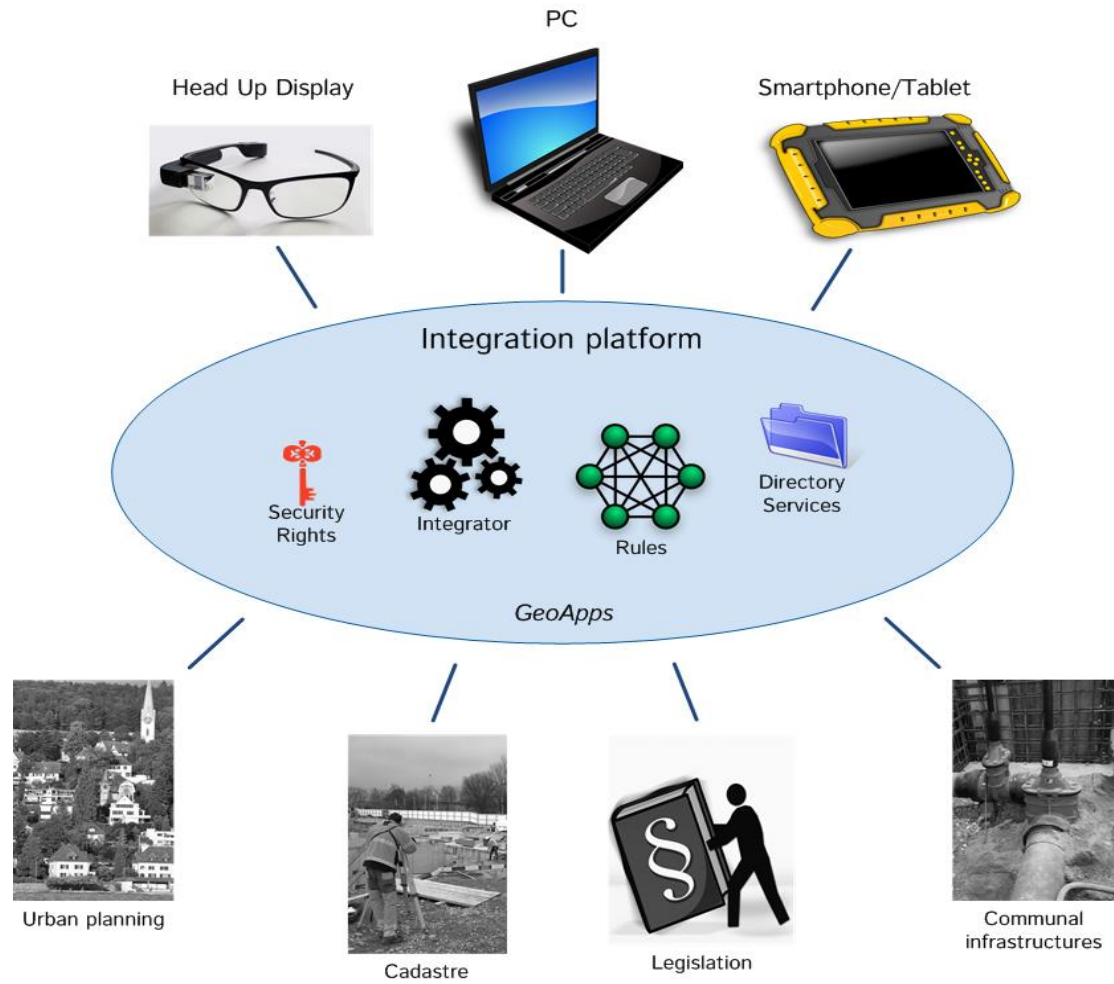
Modern technology allows the creation of maps of different scales and registers in different forms from the the same data model.

Consequences : In 2014 there will be no draftmen and cartographers in the domain of cadastre.

Procedures for the Definition of legal Arrangements



Switzerland GeoApp: A modern Web-Application approach



Summary: 9 steps to achieve a Comprehensive Cadastre

- 1. Introduce the possibility for the CC in your legal framework**
- 2. Develop a short enactment on the CC**
- 3. Introduce data and representation modeling as mandatory**
- 4. Determine a responsible authority for the CC**
- 5. Scan your legal framework including traditional rules**
- 6. Identify the stakeholders**
- 7. Create data models for all legal topics included into the CC**
- 8. Identify the procedures for the definition of legal arrangements**
- 9. Develop a feasible IT-Infrastructure**

Wisdom Of The Ages to Master the Challenges of the Modern World

- **Base for the economic development**
- **Regularization of informal legal conditions**
- **Poverty reduction**
- **Prevention from land grabbing**
- **Implementation of Spatially Enabled Societies (SES)**
- **Land consolidation**
- **Better planning**
- **Rapid reaction on changes (technological, societal, catastrophes and conflicts)**

New Zealand on the way to the Comprehensive Cadastre



Cadastre 2034

A 10-20 Year Strategy for
developing the cadastral system:
Knowing the 'where' of land-related rights

The vision of Cadastre 2034 is for a broader cadastral system that enables people to readily and confidently identify the location and extent of all rights, restrictions and responsibilities related to land and real property.

Thank you for your attention

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