The Boundary Concept
Land Management Opportunities for Sustainable Development Provided by the Cadastre 2014 Approach

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- CADASTRE 2014 AND THE BOUNDARY CONCEPT
- THE BOUNDARY CONCEPT AS A CHANCE FOR SURVEYORS
- OPPORTUNITIES CREATED BY THE BOUNDARY CONCEPT
- CONCLUSION

CADASTRE 2014 AND THE BOUNDARY CONCEPT

BOUNDARIES are used to separate different spheres
They exist in many domains of our lives as:

- limits set by parents and teachers
- rules for behavior
- boundaries defining our private property
- walls of our rooms and houses
- edge of the swimming pool
- state, district and municipal borders
- edges of airstrips, roads, runways
BOUNDARIES are everywhere.

BOUNDARIES are to be respected.

BOUNDARIES are defined by facts, conventions, rules, and laws.

CADASTRE 2014 is about boundaries in particular those defined by laws and regulations.
CADASTRE 2014 AND THE BOUNDARY CONCEPT

Traditional Definition

Land Parcel
A land parcel is a piece of land with defined boundaries, on which a property right of an individual person or a legal entity applies.

Definition of Cadastre 2014

Land Object
A land object is a piece of land in which homogeneous conditions exit within its outlines. The legal land objects are described by the legal content of a right or restriction and the boundaries which demarcate where the right or restriction applies.

The coming into being of a land object

Process:
A law defines the contents of rights or restrictions
According to the law, the outlines of the effect of the right or restriction is defined (usually on a map)

Example:
The right to own land is defined by the land code
The piece of land, where the right of an owner is in effect fixed by an agreement between owners

Impact area of right or restriction
Defined area of the ownership
CADASTRE 2014 AND THE BOUNDARY CONCEPT

Cadastre 2014 documenting «private law» and «public law»

Traditional cadastre based on «Private Law»
- Boundary definitions by agreement
- Process of boundary verification
- Process of title verification
- Registration

Impacts from «Public Law»
- Boundary definition by political decisions
- Process of boundary verification
- Process of title verification
- Registration

Legal Security: 100-120%

The principle of legal independance

Legal Topics:
- 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:
- Chartered company
- Corporation
- Society
- Tribe, Clan
- Society
- Private Land Owners
- Society
- Society

Rightful Claimants:
- Society
- Society
- Society
- Society
- Society
**Boundary Concept for Land Management**

Surveyors have the skills, not only to determine and to localize (document) boundaries and to administer land.

They have the instruments of land management to rearrange boundaries and to implement the land policies.

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<tr>
<th>fields of business activities</th>
<th>tasks</th>
<th>space related activities</th>
<th>tools/methods</th>
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<td>strategy</td>
<td>visions/goals</td>
<td>space policy</td>
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<td>management</td>
<td>measures and projects for the implementation of the policy</td>
<td>land (space) management</td>
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<tr>
<td>administration</td>
<td>active handling of spatial information</td>
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<td></td>
<td>Data exploitation, visualization, creation of reports</td>
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<td>documentation</td>
<td>cadastre operation</td>
<td>land (space) documentation</td>
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<td>data modelling, data acquisition, data maintenance</td>
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**Boundary Concept as a Chance for Surveyors**

**LAND MANAGEMENT**
- land use planning
- land consolidation
- land reallocation
- melioration
- landscape dev.
- land recycling
- monitoring
- navigation
- geoinformation
- land registration
- cartography
- surveying
- geodesy

**GEOMATICS**
Section 4: Cadastre of Public-Right Restrictions of Landownership

Art. 16 Subject matter and form
1 The Cadastre of public-right restrictions shall contain public-right 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 relevant to federal legislation are entered in the Cadastre of public-right restrictions.
3 The cantons may define additional official geodata of proprietary nature that must be recorded in the Cadastre of public-right restrictions.
4 The Cadastre of public-right 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-right restrictions.

Art. 17 Validity
The content of the Cadastre of public-right restrictions is considered to be publicly known.

Art. 18 Liability
Liability for the management of the Cadastre of public-right restrictions is governed by Article 955 of the Civil Code.
Boundary Concept for Land Management

LAND MANAGEMENT OPPORTUNITIES CREATED BY THE BOUNDARY CONCEPT

Land consolidation
LAND MANAGEMENT OPPORTUNITIES CREATED BY THE BOUNDARY CONCEPT

Land-use planning

Land management in rural and urban areas
LAND MANAGEMENT OPPORTUNITIES CREATED BY THE BOUNDARY CONCEPT

Traditional Land Right Management

Indigenous land use agreements

Native Title Act, under 2:3

negotiation protocol 1:121-124

Walgalu and Wiradjuri people, Tumut

Brungle Local Aboriginal Land Council and

Adelong Consolidated Gold Mines 1:121-124

The Indian Land Consolidation Act (ILCA)

As most people familiar with Indian affairs know, the problem of fractionated interests ….

Ethnic Conflict Management

Boundary Concept for Land Management

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Rüdlingen, June 17, 2008
CONCLUSION

Land resources are used for a variety of purposes which interact and may compete with one another; therefore, it is desirable to plan and manage all uses in an integrated manner.

Based on a reliable and complete 'cadastral' documentation, land management tools and methods be used to find sustainable solutions by rightful new boundary and property configurations.

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THANK YOU FOR YOUR ATTENTION

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