CLGE
Working for a Profession

PCC Conference and Plenary Meeting
13-15 November 2017
Tallinn, Estonia
The public-private partnership in cadastre in Switzerland
SWITZERLAND
41'290 km²
8 million people
26 cantons
~2600 municipalities
~4.0 million parcels
Legal Foundation:  
Art. 75a of federal Constitution

Federal Constitution of the Swiss Confederation

of 18 April 1999 (Status as of 1 January 2008)

Preamble
In the name of Almighty God!
The Swiss People and the Cantons, mindful of their responsibility towards creation, resolved to renew their alliance so as to strengthen liberty, order, and peace in a spirit of solidarity and openness towards the world, determined to live together with mutual consideration and respect conscious of their common achievements and their responsibilty to future generations, and in the knowledge that only those who use their freedom courageously and intelligently can hope to live up to the expectations placed on them.

Art. 75a Surveying
1 National surveying is a matter of the Confederation.
2 The Confederation shall legislate on cadastral surveying.
3 It can legislate on the harmonization of official land information.
Legal acts

Swiss Civil Code, 1912

- **Security of ownership**, efficient land market, and mortgaging of real estates

Act on Geoinformation, 2008

- A **uniform legal basis** for all land information based on the various federal decrees (incl. cadastral surveying)
- A legal basis for the introduction of a **cadastre for public legal restrictions on landownership** rights (PRLR-Cadastre)
Legal acts

• Swiss civil code (since 1.1.1912)

Art. 942

1 All rights on real estates have to be registered in the land registry.
2 The land registry consists of the main book with its associated maps, the auxiliary registers (in particular the list of property owners), the deeds (records and evidences), the description of properties, and the day book.

Art. 950

1 Registration and description of the properties in the land register have to be done on the basis of a map, which as a rule, has to be the result of an official cadastral survey.
2 The Federal Council decides on which principles these maps have to be based upon.
Basic legal Principles

- No ownership without registration (art. 656)
- No registration without surveying (art. 950)
- No surveying without boundary definition (art. 669)

- Title registration system
- Title guaranteed by the government
Swiss cadastral system

Cadastral Surveying

Land Register

- main book
- auxiliary registers (in particular the list of property owners)
- deeds (records and evidences)
- description of properties
- day book
Organisation of cadastral surveying

<table>
<thead>
<tr>
<th>Level</th>
<th>Organisation</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confederation</td>
<td>Federal Directorate of Cadastral Surveying</td>
<td>Supervision, strategic management</td>
</tr>
<tr>
<td></td>
<td>~270 Private Land Surveying Offices</td>
<td></td>
</tr>
<tr>
<td>Canton</td>
<td>Cantonal Surveying Offices</td>
<td>Operational management</td>
</tr>
<tr>
<td></td>
<td>~15 City Surveying Offices</td>
<td></td>
</tr>
<tr>
<td>Municipality</td>
<td>~270 Private Land Surveying Offices</td>
<td>Execution</td>
</tr>
<tr>
<td></td>
<td>~15 City Surveying Offices</td>
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</tbody>
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Approximately:
- 15 employees
- 300 employees
- 3000 employees
Role of Private Sector

Two Partners:

Public Sector
- legislation (Federal and cantonal level)
- financing structure
- setting standards
- supervision
- co-ordination
- verification

Private Sector
- production
- maintenance
- service to clients
- innovation

Public Private Partnership
Private Sector – Framework

- Surveyors entrusted with cadastral surveying are carrying out a **sovereign function** and are in this respect regarded as **persons of public trust**.
Why the Private Sector?

- By delegating sovereign duties to the responsibility of the private sector, the federal government can reduce its administrative work load.
- The potential for innovation is increased considerably through the inclusion of the private sector.
- The private industry is located locally = customer proximity.
- Peripheral regions are provided with quality work places.
Tasks of a private surveyor

- Initial Survey and Renewal of the cadastral survey
- Continuous and periodic updating
- Data Processing
- Data management
- Data delivery
- Easement (legal acts)
- Certified plans for construction
- Private mandates
  - Buildings controls
  - Monitoring
  - 3D
  - Consulting
Why License and register

• A license issued to cadastral surveyors and an entry in the register for licensed surveyors guarantee a minimal standard of professional and personal competence in cadastral surveying.

• Through the federal register for licensed surveyors, the surveying ordinance makes a clear distinction between an educational certificate, professional practice and disciplinary measures.
 Licence for Cadastral Surveyor

<table>
<thead>
<tr>
<th>Academic education</th>
<th>Practical experience</th>
<th>State examination</th>
<th>Register</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Federal Institute of Technology (ETH), Universities, Universities of Applied Sciences</td>
<td>2 years</td>
<td>1</td>
<td>License</td>
</tr>
</tbody>
</table>

1. Accreditation "sur dossier" of academic requirements by Cadastral Surveying Commission
2. Additional modules to meet requirements are optional
<table>
<thead>
<tr>
<th>Academic requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a. Scientific requirements</strong></td>
<td><strong>e. Land management</strong></td>
</tr>
<tr>
<td>• mathematics</td>
<td>• land use planning and regulations</td>
</tr>
<tr>
<td>• physics</td>
<td>• real estate reallocation and regulations</td>
</tr>
<tr>
<td><strong>b. Geomatics</strong></td>
<td>• property and real estate appraisal</td>
</tr>
<tr>
<td>• basic geodesy</td>
<td><strong>f. Swiss law</strong></td>
</tr>
<tr>
<td>• geodetic measuring techniques and evaluation methods</td>
<td>• general legal studies</td>
</tr>
<tr>
<td>• error theory and adjustment compensations</td>
<td>• laws pertaining to property and real estate</td>
</tr>
<tr>
<td><strong>c. Information technology</strong></td>
<td>• laws in surveying and geoinformation</td>
</tr>
<tr>
<td>• computer sciences</td>
<td>• laws concerning construction, planning and environment</td>
</tr>
<tr>
<td>• geoinformation systems</td>
<td><strong>g. Corporate management</strong></td>
</tr>
<tr>
<td><strong>d. Surveying in Switzerland</strong></td>
<td>• business administration</td>
</tr>
<tr>
<td>• national surveying</td>
<td>• project management</td>
</tr>
<tr>
<td>• cadastral surveying</td>
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</table>
Evidence must be provided for the academic education equivalent to a Swiss bachelor's degree in the following topics:

a. first national language
b. second national language
c. geography of Switzerland
d. history and social studies of Switzerland

open to all nationalities
State exam covers four topics

- Cadastral surveying
- Geomatics
- Land management
- Corporate management
Register for surveyors

- Only for persons practicing in cadastral surveying from the private sector and from public institutions
- Duties and supervision apply to the persons registered
- Accreditation to carry out the functions of a licensed surveyor
Organisation of the PPP in Switzerland

In the German speaking part of Switzerland:

- Tenders between the surveyor and the municipalities (in general for 5 years)
- Fixed prices (x% of the official pricing list HO 33)
- Contracts obtained after public call for tender
- “Exclusivity” of all the official measurement jobs for the contracted surveyor
- The surveyor is also responsible for data hosting and transmission of information (fixed fee per year)
- Only the non-official cadastral jobs and the jobs concerning the whole territory of a municipality (initial survey, renewal, land management,…) are submitted to a public call for tender
Organisation of the PPP in Switzerland

- In the **French speaking** part of Switzerland:
  - All the official measurement jobs are free.
  - The land owner can ask for offers to many surveyors.
  - The surveyors use in general the HO 33 pricing list to establish the offer.
  - Only the jobs managed by the administration are submitted to a public call for tender (initial survey, renewal, land management..).
  - For the periodic updating (mostly news constructions), there are many systems (Fribourg: the surveyor is contracted and paid by the canton (HO 33). The owner pays a fixed fee).
Organisation of the PPP in Switzerland

• The HO 33/TH 33 is a paritary pricing list (IGS/cantons) for the periodic updating.
• It is applied in the most of the cantons.
• It is updated periodically.
• It is the legally accepted by the cantons (not considerate as a cartel tarification).
Organisation of the PPP in Switzerland

- The State keeps the “power” on the cadastre
- The State doesn’t take financial risks (new projects according to the budget)
- The State can hire workers from the private sector
- The market is a regulator of the number of companies
- The private surveyors are working as entrepreneurs
- The register reduces the difference between the structures of the companies (education, apprentice, CPD, pricing lists, insurance obligation, ethics,…)
- The concurrence increases inventiveness
- The price pressure is less important, due to different criteria of evaluation (price less than 50%)
Strategic Goals of CLGE

• Take part in the legislative process governing the exercise of the Surveying Profession at the European and national levels;

• Build a Professional image of the European of Surveyor, recognized by the national governments as well as the EU;

• Motivate young surveyors to become active within their national associations and hence within CLGE.

• Make sure that the CLGE members are satisfied with the performance of CLGE.

• Influence

• Visibility

• Renewal

• Members Satisfaction
European Surveyor of the year
The First Global Surveyors Day
21 March 2018
Washington D.C.
Reviewing Process

European requirements for cadastral surveyor activities

Impact of EU Legislation on Cadastral Surveying

7 April 2010
House of the European Surveyor and GeoInformation
Thank you for your attention.