



The Swiss case: 100 years of PPP

Maurice Barbieri, President CLGE
On behalf of IGS

Ingenieur Geometer Schweiz (IGS)

- We are the Association of the publicly appointed surveyors and surveyor offices in Switzerland
- More than 95% of the offices in Switzerland are IGS members
- We have a Secretary-General (Centre patronal in Bern), delegates from the regions and cantons (14 sections) and a General Assembly (230 offices and 370 surveyors are members)
- Our mother organization is geosuisse (academic association)
- Our goal is to protect and promote our interests and support our members in internal politics and economy as well as outside Switzerland
- We will be 100 years old in 2017!!

Who are we?

Ingenieur-Geometer Schweiz
Ingénieurs-Géomètres Suisses
Ingegneri-Geometri Svizzeri

IGS

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Please be advised, that only the section of the Jubilee is translated into English.

Bienvenue

Chère Madame,
Cher Monsieur,

Nous vous remercions vivement de votre intérêt aux activités de notre association Ingénieurs-Géomètres Suisses (IGS).
Qu'est-ce qui rend la profession des Ingénieurs-Géomètres si intéressant?

Question du mois: Quel parcours choisirez-vous pour votre prochaine randonnée?

Voir sur map.geo.admin.ch

Percement Gotthard

The surveyors in the longest tunnel of the world

Uniquement la version anglaise disponible comme fluid book.

Placehandicape

Information sur le projet

ROLLSTUHL/PARKPLATZ.CH
PLACEHANDICAPE.CH
PARCHEGGIODISABILICH

100 Jahre engagiert
100 ans d'engagement
100 anni di impegno

100 IGS 1917 2017

Anno: 1917
L'anno: 1917
Anno: 1917

Amliche Vermessung sichert Grundeigentum

www.igs-ch.ch

What are we doing?

PPP since more than 100 years

**100 Jahre
Amtliche Vermessung Schweiz**

**Mittwoch, 9. Mai 2012, 11–17 Uhr
Jubiläumsauftakt auf dem Bundesplatz**

**Ausgabetag der Sondermarke «100 Jahre Amtliche Vermessung Schweiz»,
Enthüllung durch alt Bundesrat Samuel Schmid, Sonderpoststelle**

Moderation Mona Vetsch Grösstes Puzzle der Schweiz

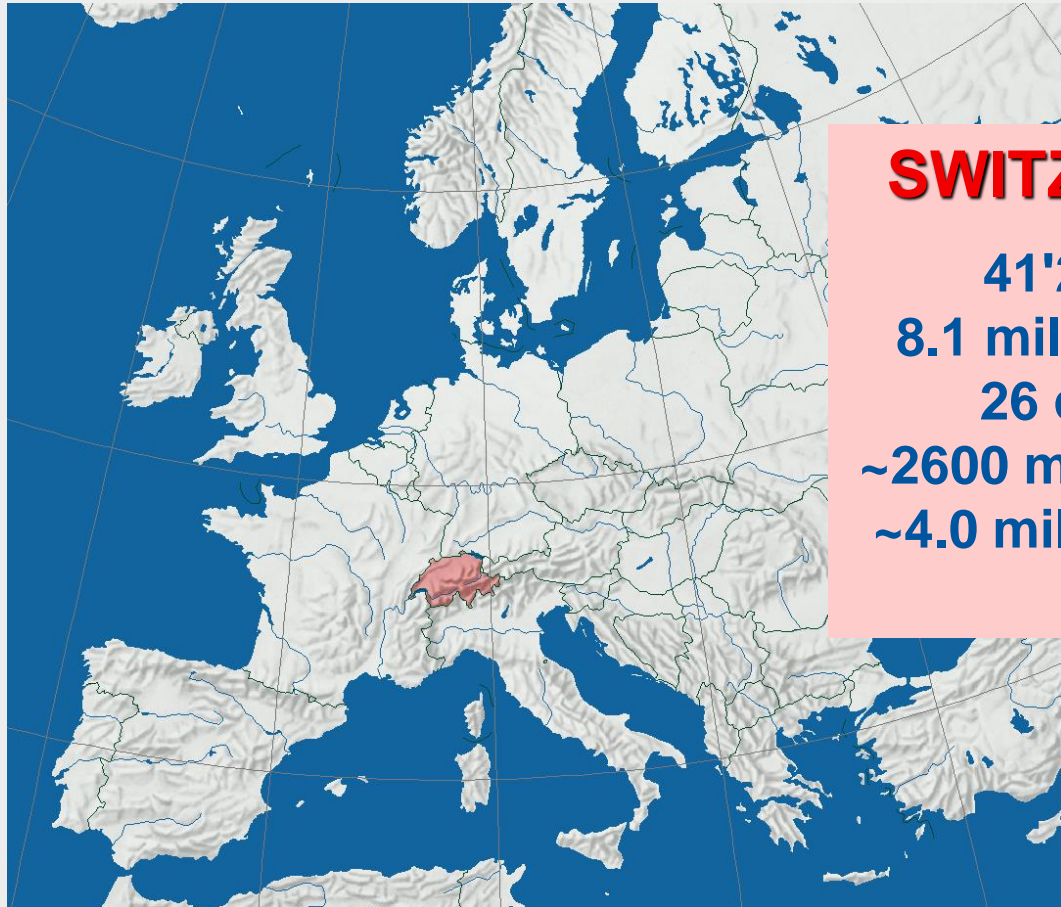
Fachleute informieren über die amtliche Vermessung

Swiss-German-Dixie-Corporation Il risotto, d'Bratwurst & le dessert

Glücksrad, Ballonflugwettbewerb, Quiz

www.cadastre.ch/2012

Basic Dimensions



SWITZERLAND

41'290 km²

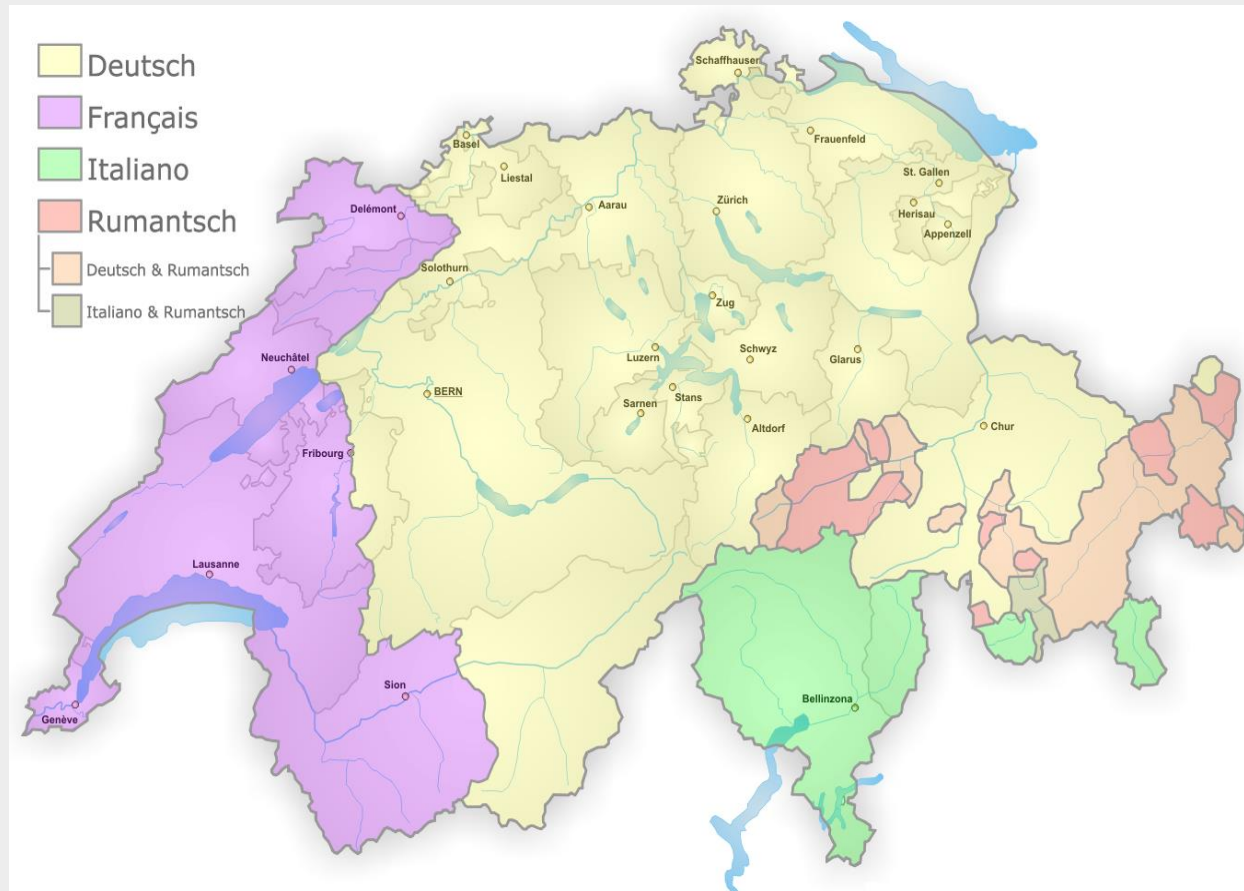
8.1 million people

26 cantons

~2600 municipalities

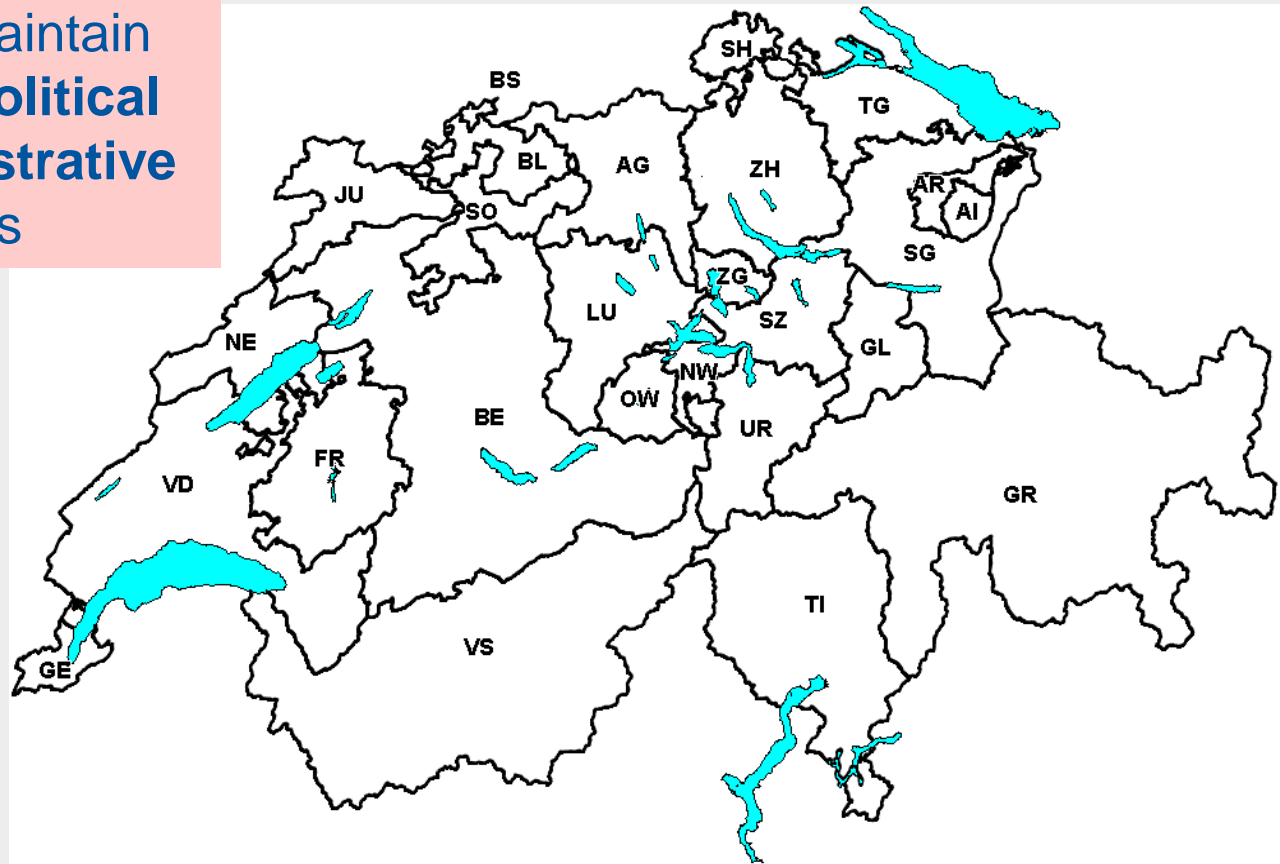
~4.0 million parcels

Four official languages



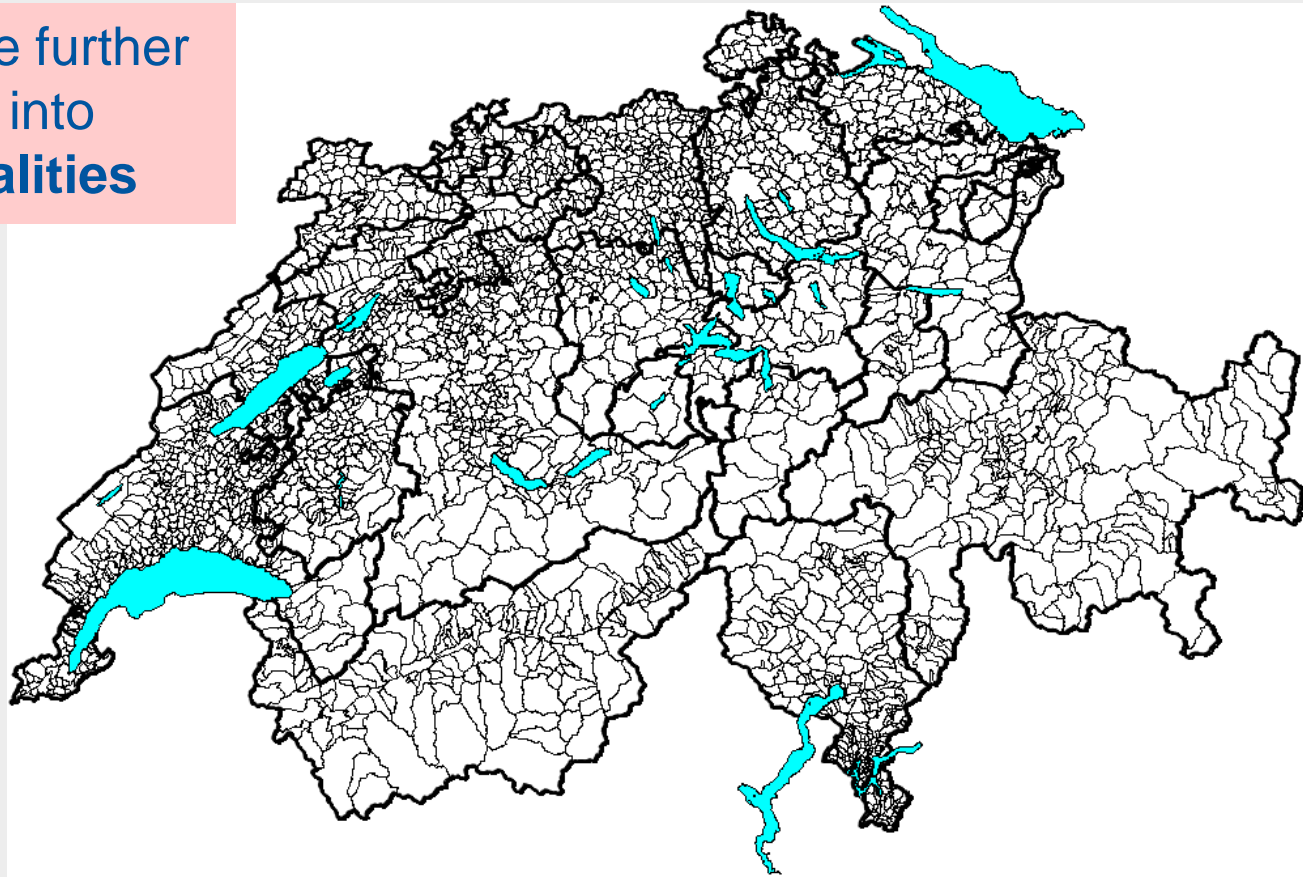
Federal Country with 26 Cantons...

Cantons maintain their own **political** and **administrative** bodies



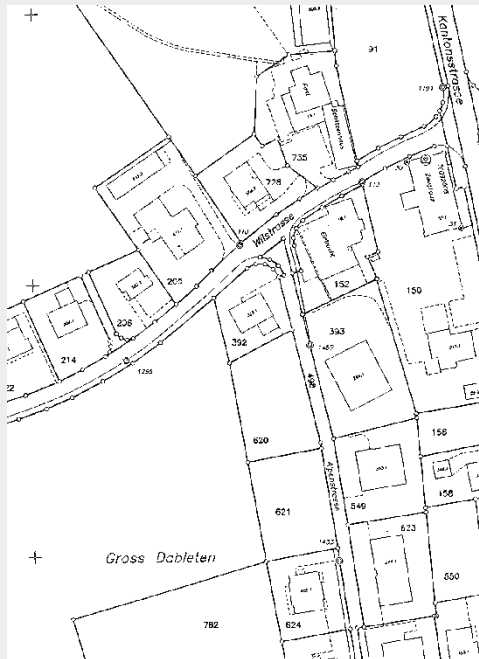
... and 2596 Municipalities

Cantons are further
divided into
municipalities



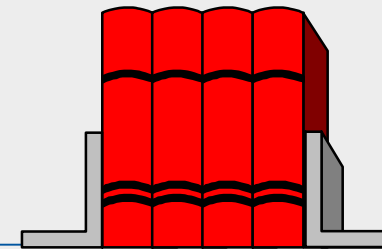
Swiss cadastral system

Cadastral Surveying

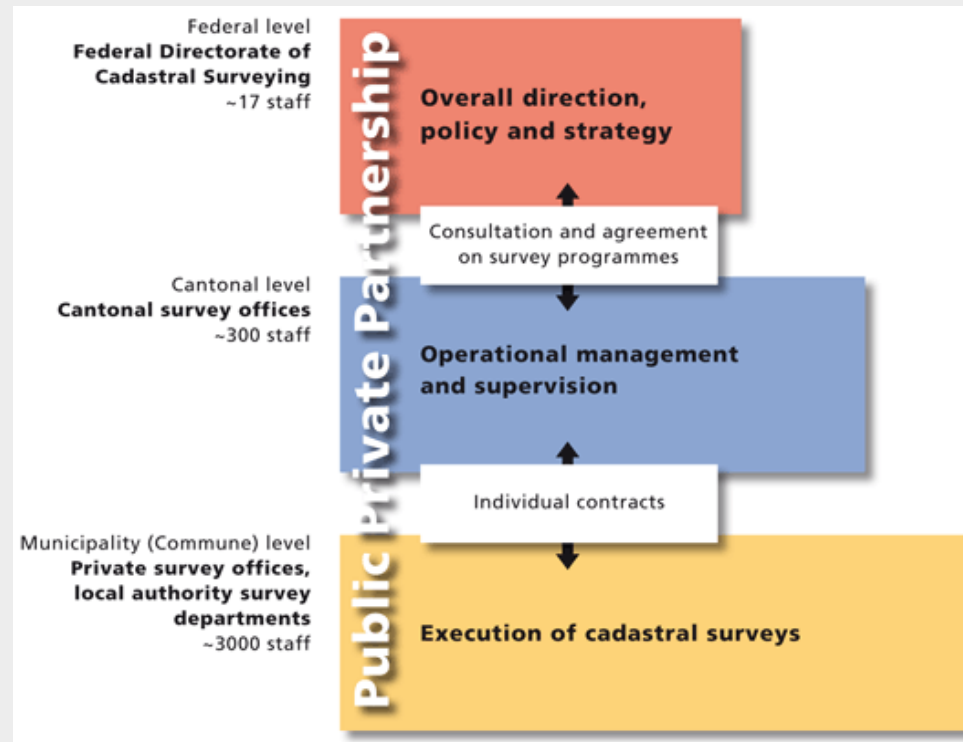


Land Registry

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



Roles in cadastral surveying



Cadastral surveying in Switzerland is an effective example for public private partnership. There is a close cooperation between public authorities – the Federal government, cantons and municipalities – and the private sector.

Use of cadastral surveying

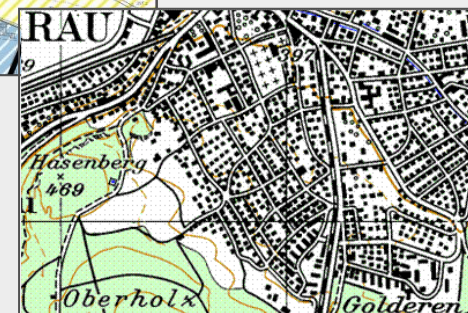
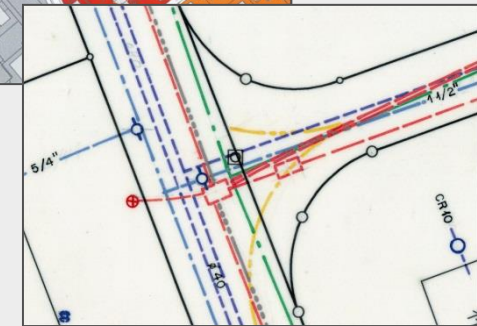
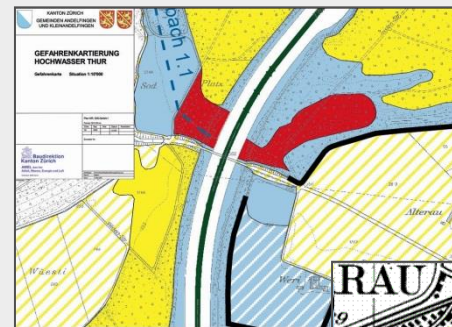
- Land register
- Construction projects
- Traffic engineering
- Land-use planning
- Environmental protection
- Public administration
- PLR-cadastre
- Tourism
- ...



Need of cadastral surveying

As basis for...

- City maps
- Zoning plans
- Utility asset maps
- Geographic information systems
- ...

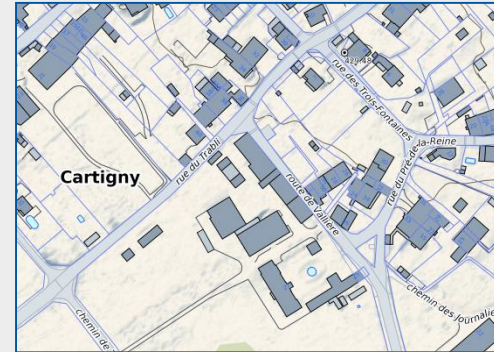


→ National Geodata Infrastructure

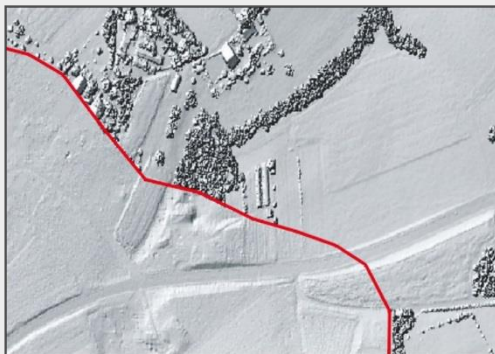
The products



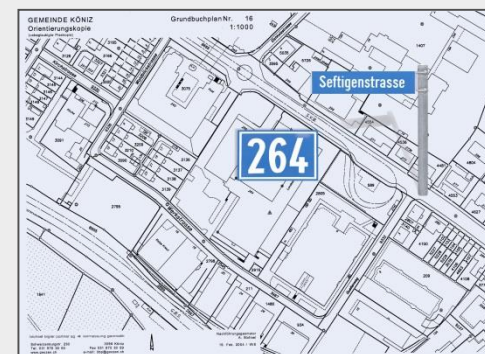
Cadastral maps



Base maps

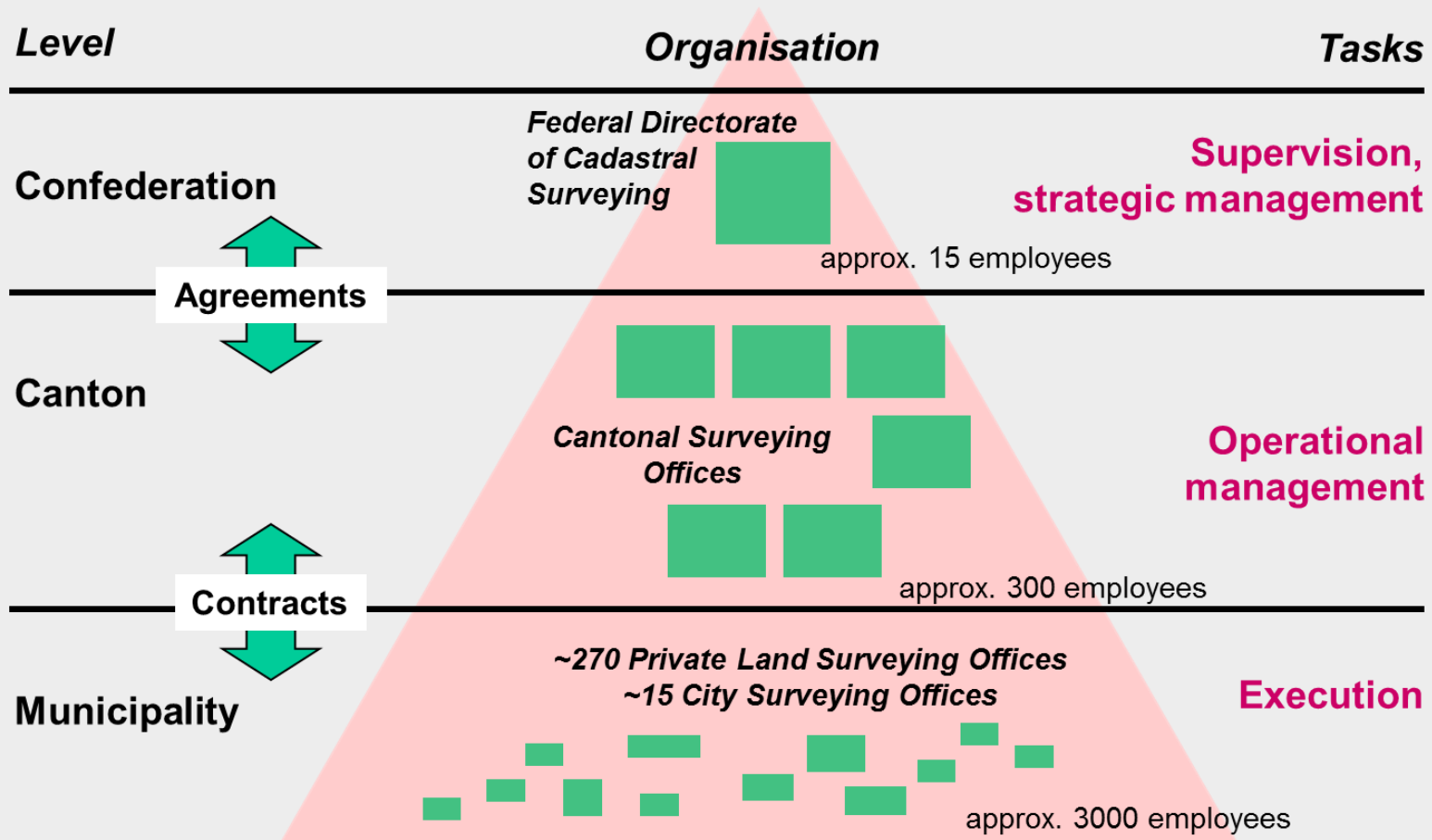


Digital terrain models



Building addresses

Organization of cadastral surveying



Role of Private Sector

Public Sector

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



Private Sector

- production
- maintenance
- service to clients
- **innovation**

Two Partners in a Public Private Partnership

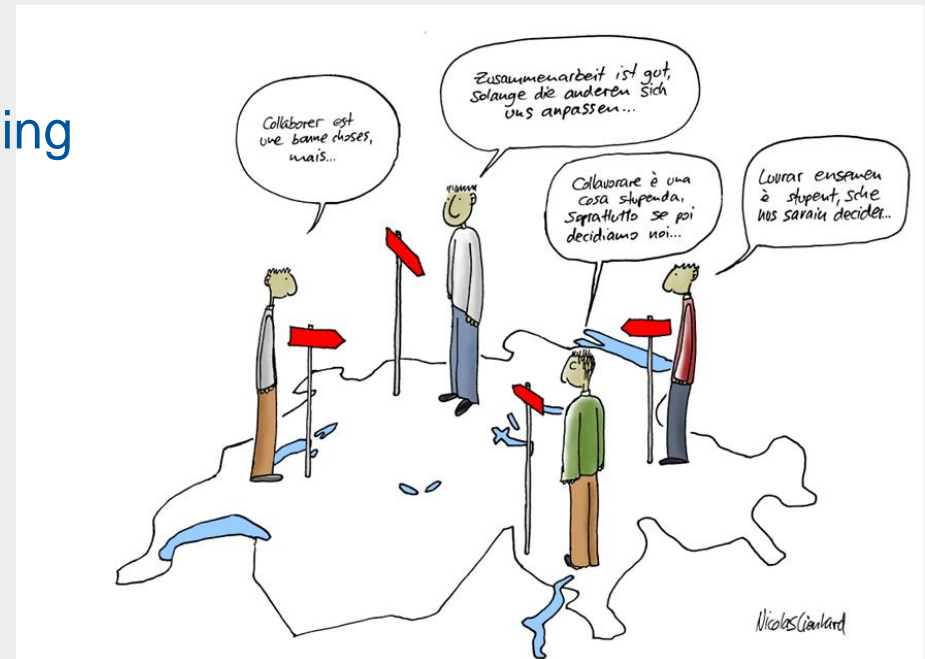
Role of Private Sector

Surveyors entrusted with cadastral surveying are carrying out a sovereign function and are in this respect regarded as persons of public trust.



Private Sector – Why?

- 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
- Considerably increased by including the private sector
- The private industry is based locally = customer proximity
- Peripheral regions are provided with quality work places



Private Sector – Why?

- Initial Survey and Renewal of the cadastral survey
- Continuous and periodic updating
- Data Processing
- Data management and data backups
- Data delivery
- Consulting
- + Private mandates



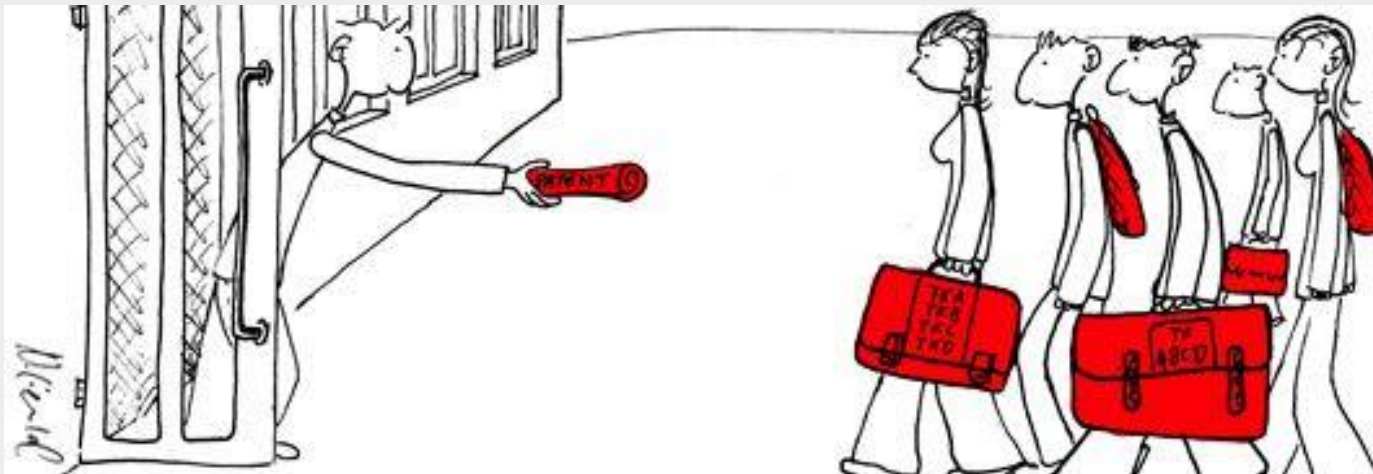
Private Sector – Why?

Licensed land surveyors who have successfully completed the Swiss Federal certifications and who are registered in the Register of Licensed Land Surveyors are authorized to perform independent (self-employed) work within Cadastral Surveying.



License and Register: Why?

- 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.



Path to License for Cadastral Surveyor

Academic education	Practical experience 2 years		State examination	Register
Master of Federal Institute of Technology (ETH), Universities, Universities of Applied Sciences	1	2	1	License Professional accreditation

- 1 Desk study accreditation of academic requirements by Cadastral Surveying Commission
- 2 Additional modules to meet requirements are optional

Academic requirements

a. Scientific requirements

- mathematics
- physics

b. Geomatics

- basic geodesy
- geodetic measuring techniques and evaluation methods
- error theory and adjustment compensations

c. Information technology

- computer sciences
- geoinformation systems

d. Surveying in Switzerland

- national surveying
- cadastral surveying

e. Land management

- land use planning and regulations
- real estate reallocation and regulations
- property and real estate appraisal

f. Swiss law

- general legal studies
- laws pertaining to property and real estate
- laws in surveying and geoinformation
- laws concerning construction, planning and environment

g. Corporate management

- business administration
- project management

Universities

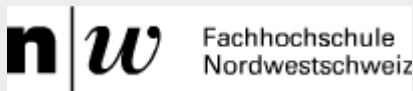
Federal Institute of Technology and Universities of Applied Science...



ETHZ Eidgenössische Technische Hochschule Zürich



EPFL École polytechnique fédérale de Lausanne



FHNW Fachhochschule Nordwestschweiz



HEIG-VD Haute École d'ingénieurs et de gestion
du Canton de Vaud

Academic requirements

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 of surveyors

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



Organization of the PPP in cadastre

In the German speaking part of Switzerland:

- Contracts between the surveyor and the municipalities (in general for 5 years)
- Fixed prices (x% of the official pricing list HO 33)
- Contracts obtained by public 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 tender

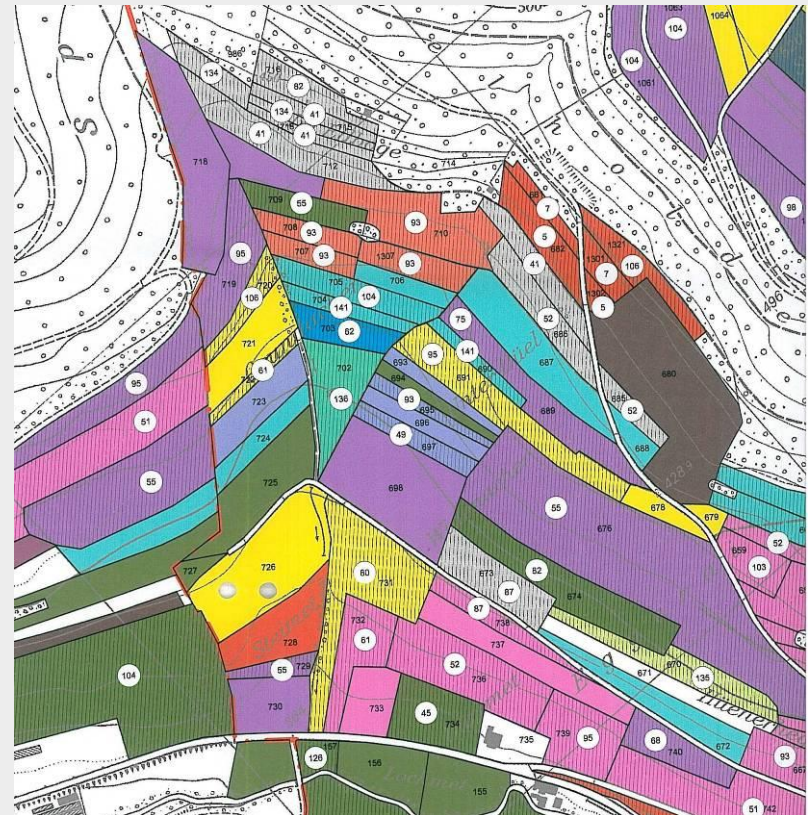
Organization of the PPP in cadastre

In the French speaking part of Switzerland:

- All official surveying work is subject to an offer
- The land owner or client can solicit offers from several surveyors.
- Generally, the surveyors use the HO 33 pricing list to establish the offer.
- Only the jobs managed by the administration are submitted to a public tender (initial survey, renewal, land management..).
- For the periodic updating (mostly new constructions), there are many systems (Fribourg: the surveyor is contracted and paid by the canton (HO 33). The owner pays a fixed fee.

Organization of the PPP in land consolidation

- Land consolidation is also made by private surveyors
- Multidisciplinary team
- Licensed Surveyor as key person
- Every step is based on legislation
- No civil servant or notary is needed
- Forced procedures or voluntary procedures
- The State (CH + cantons) finances 80% of the works





Thank you for your attention