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Federal Office of Topography, swisstopo
Federal Directorate for Cadastral Surveying



Country Report SWITZERLAND

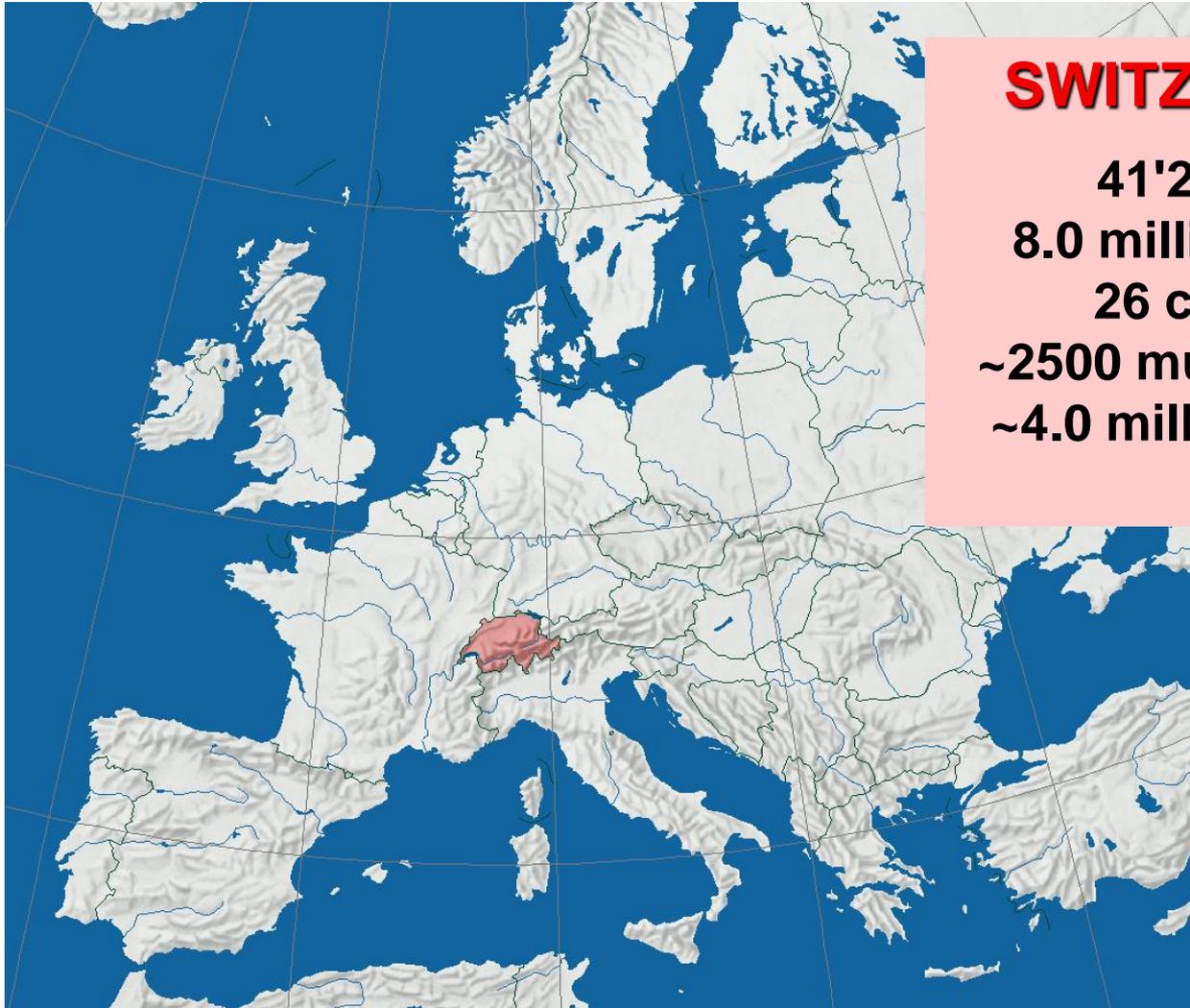
Dr. Daniel Steudler

Swiss Federal Directorate for Cadastral Surveying

Annual Meeting 2013, FIG-Commission 7
22 October 2013, Yaoundé, Cameroon



Basic Dimensions



SWITZERLAND

41'290 km²

8.0 million people

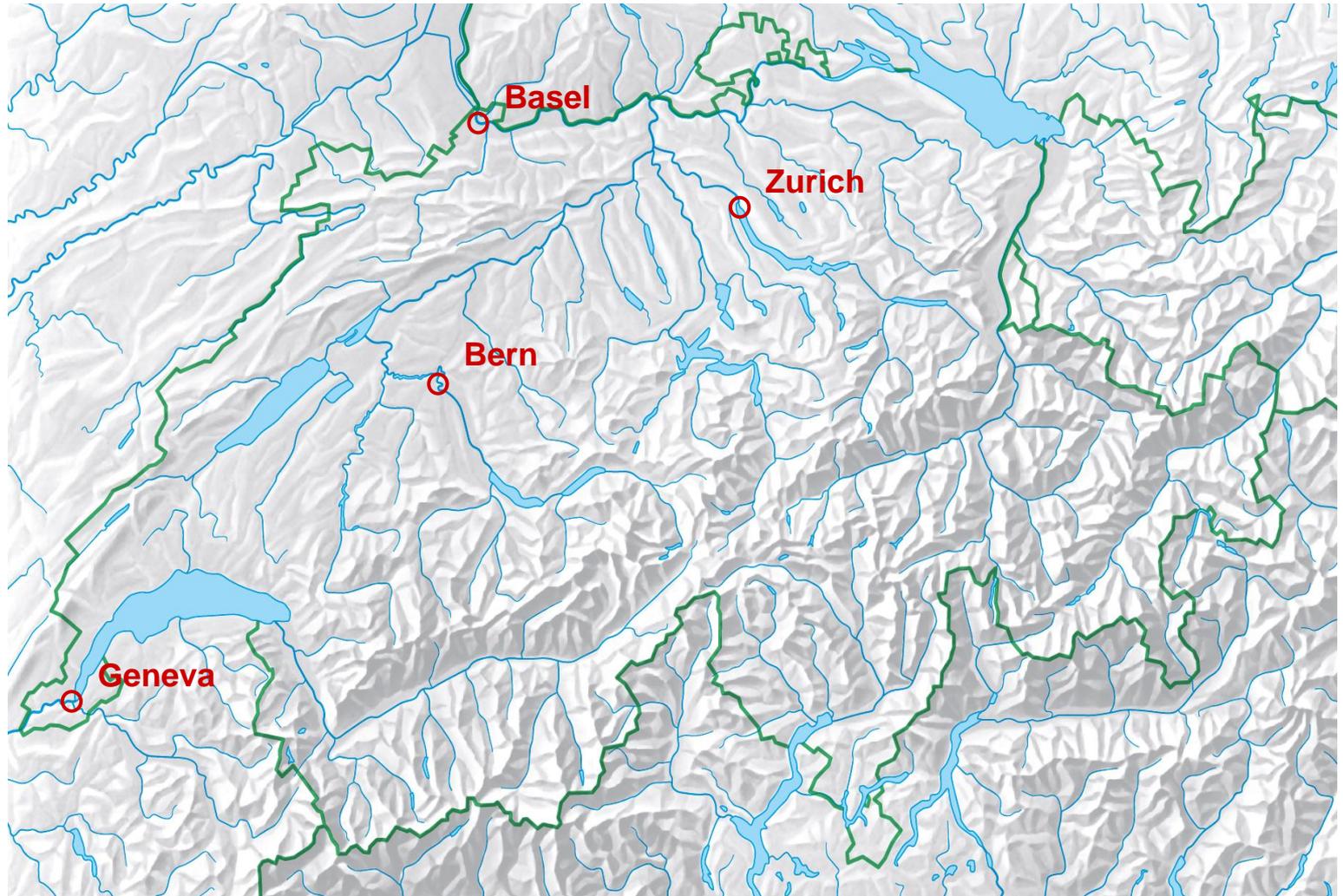
26 cantons

~2500 municipalities

~4.0 million parcels

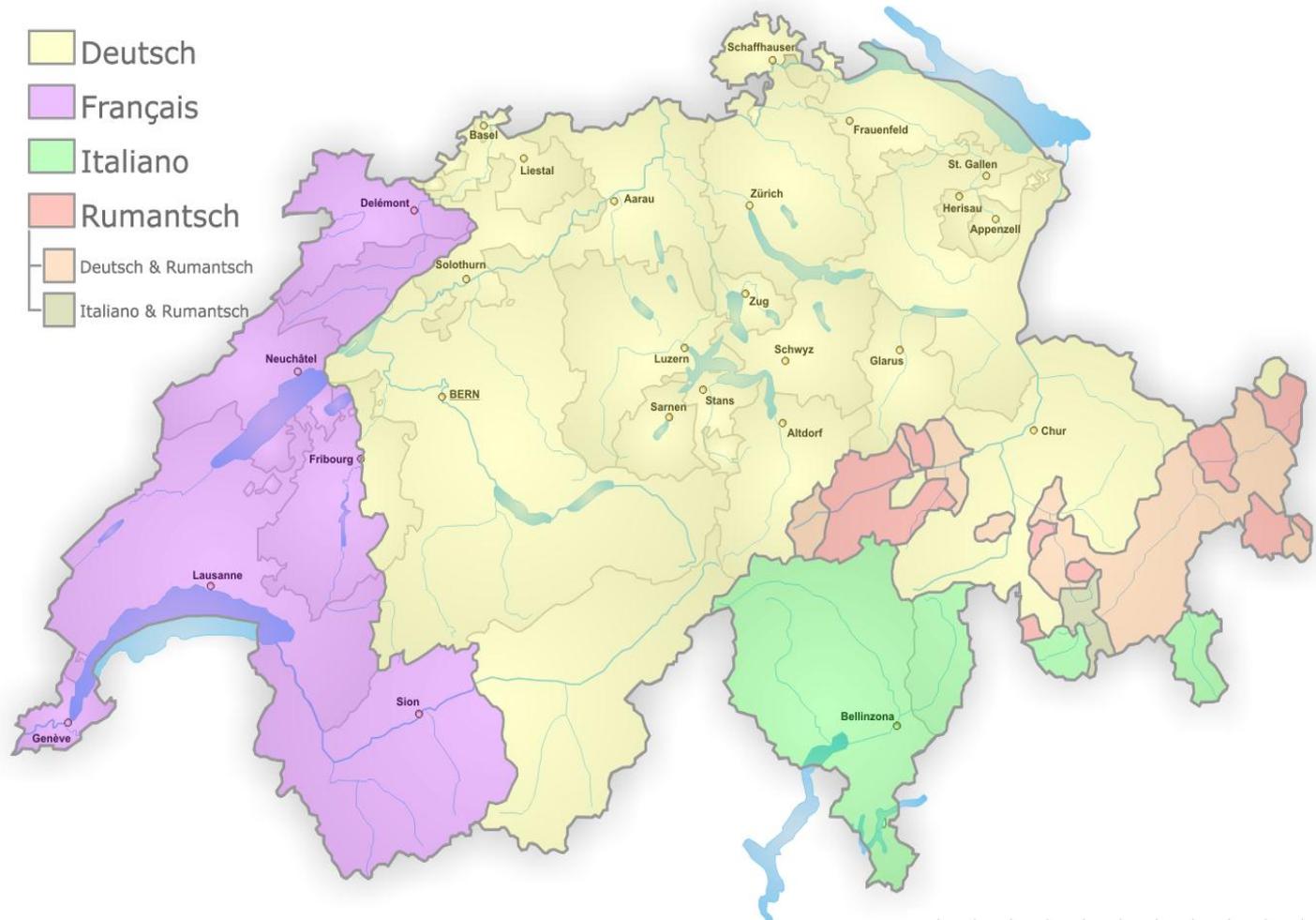


Topography of Switzerland





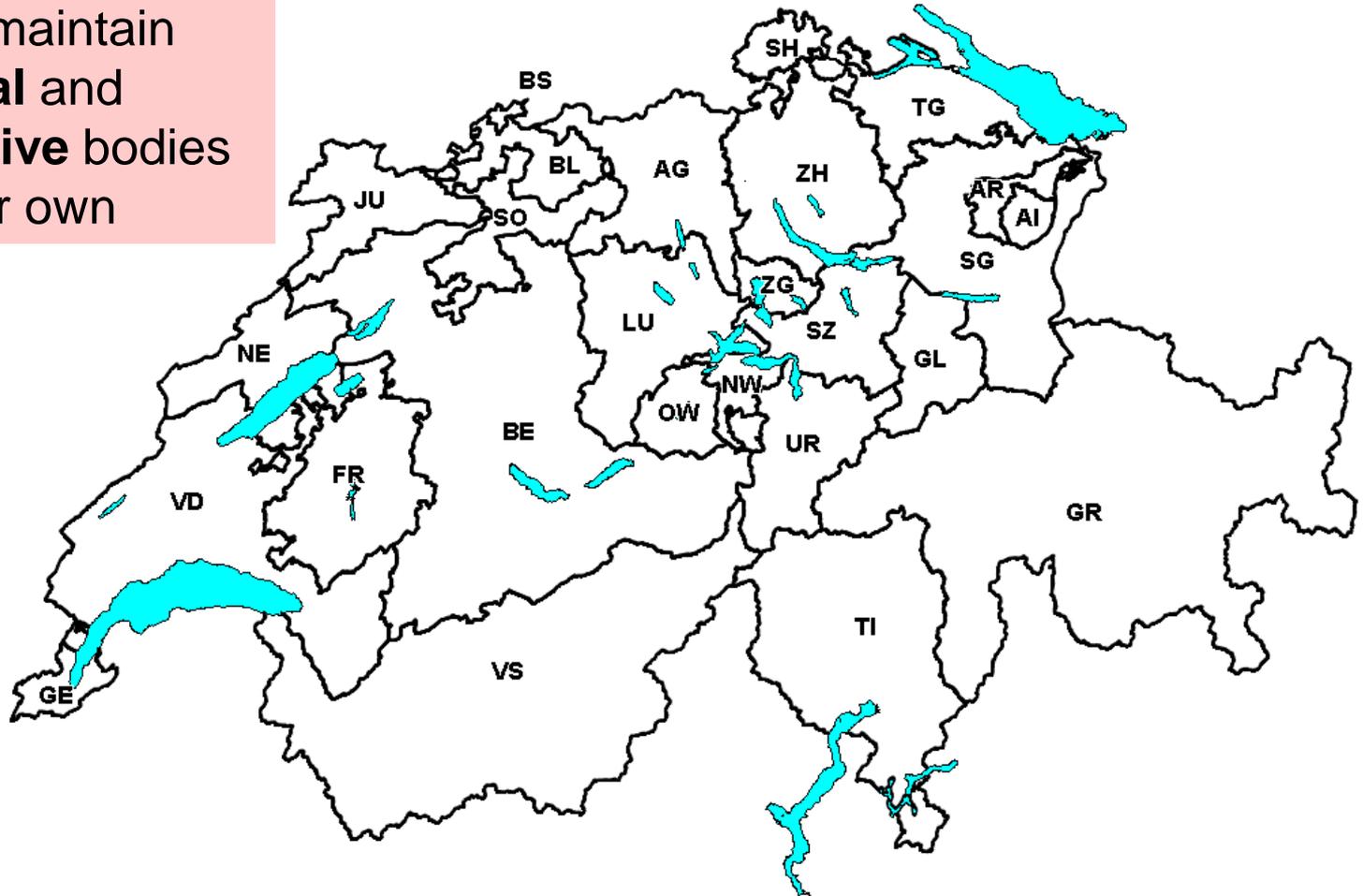
Four official languages





Federated Country with 26 Cantons...

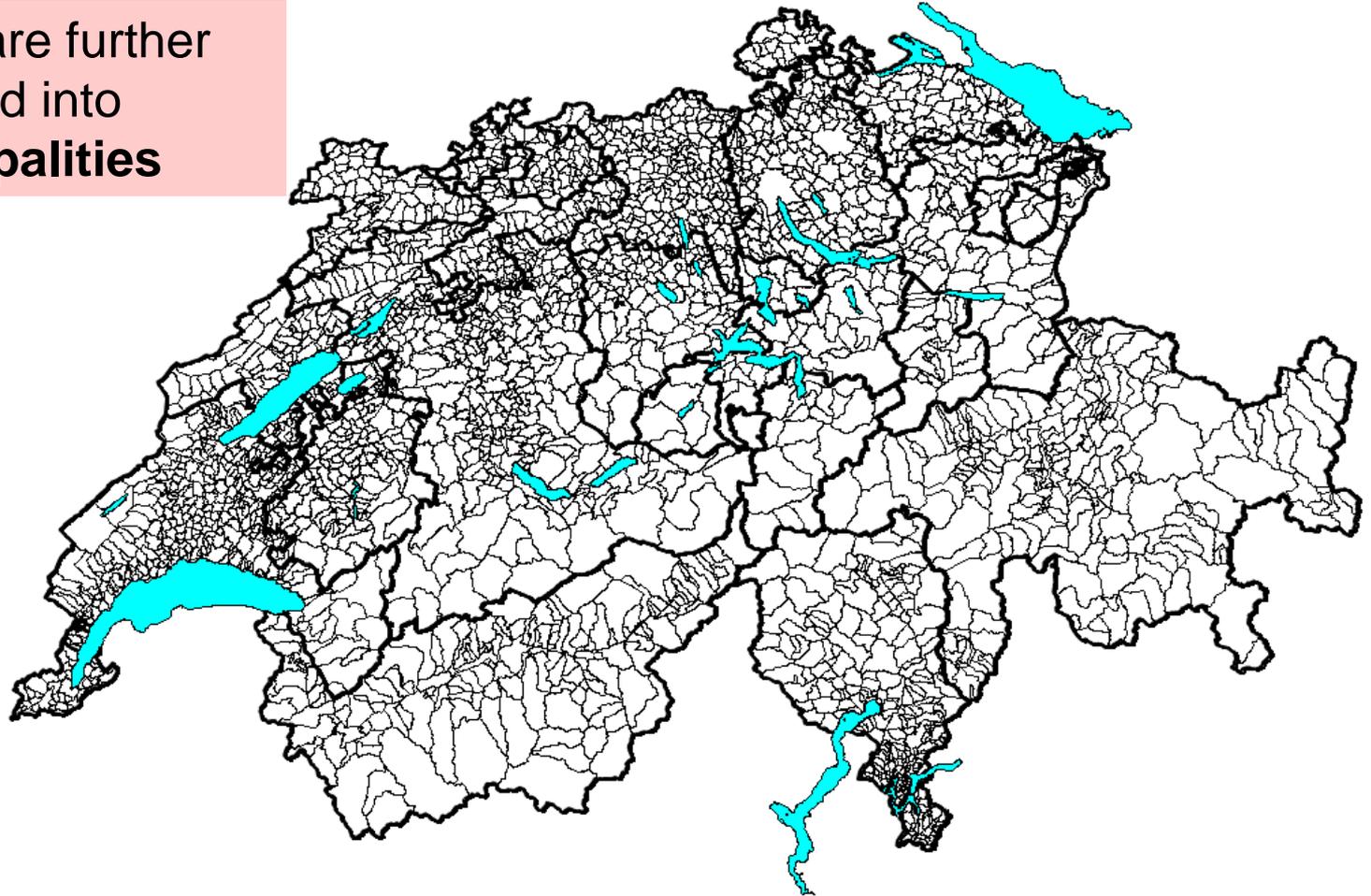
Cantons maintain
political and
administrative bodies
on their own





... and some 2500 Municipalities

Cantons are further divided into **municipalities**





Basic Principles (as in civil code)

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

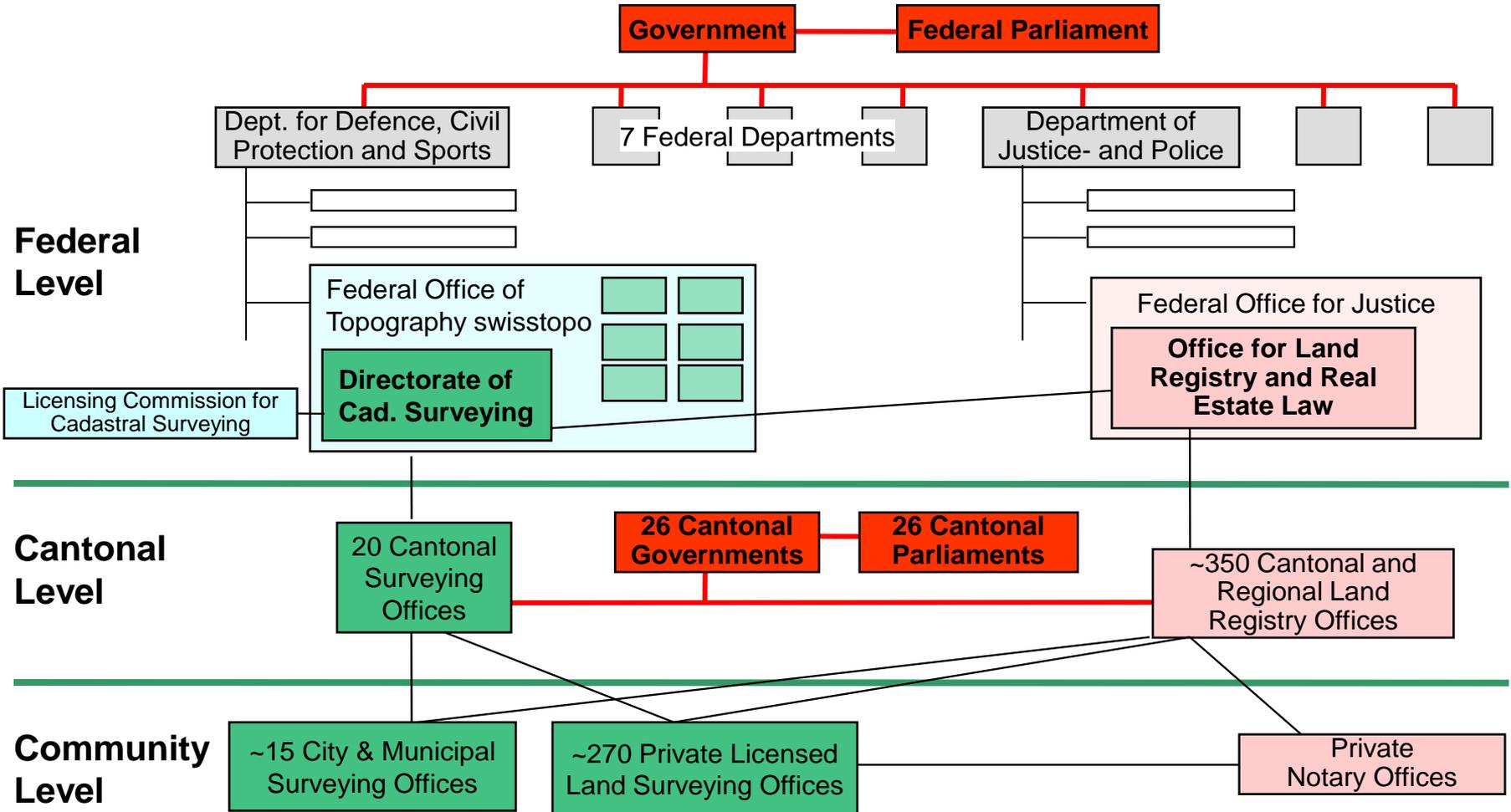
- **Title registration system**
- **Title guaranteed by the government**



Organisations involved in cadastral system

Cadastral Surveying

Land Registration





Basic Indicators for cadastral surveying (1/2)

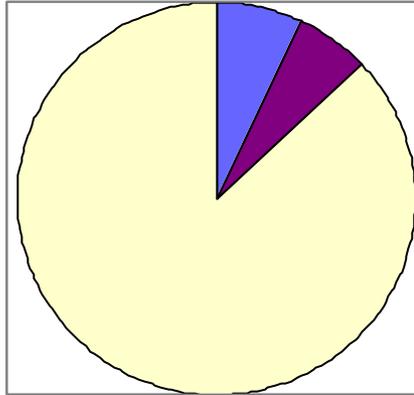
- size: 41'290 km²
- population: 8.0 million
- no. of parcels: 4.0 million
- no. of buildings: 2.9 million

- total real estate value: CHF 2'000-2'400 billion
EUR 1'600-2'000 billion
- mortgages: CHF 600-700 billion
EUR 500-580 billion



Basic Indicators for cadastral surveying (2/2)

- no. of staff active in cadastral surveying: 3'100



- federal and cantonal administration: 6.9%
- other public sector offices: 6.0%
- private sector offices: 87.1%

- no. of boundary mutations: 17'892
- no. of building mutations: 40'528
- volume of mutation fees: CHF 97.2 mio.
EUR 77.8 mio.
- fee income from data distribution: CHF 9.4 mio.
EUR 7.5 mio.

(45% analogue data / 55% digital data)



Milestones for Swiss Cadastral Surveying

- 1850** urban developments → juridical cadastre gains more importance over fiscal cadastre
- 1912** entry into force of civil code with provisions on land surveying (cadastral surveying becomes a federal task, execution is transferred to cantons)
- 1993** introduction of fully digital format (AV93)
- replacement of the conventional paper maps by digital databases
 - abolition of fixed tariffs, introduction of freedom of methods, and tendering for projects.
- 2004** new article 75a in the Federal Constitution (for the first time, cadastral surveying is anchored in constitution)
- 2005** new Act on Geoinformation, based on article 75a of the Federal Constitution, defining the principles of a National Geodata Infrastructure (NGDI) including cadastral surveying and RRR

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Enlarged map | Aerial imagery | Color map | Search location, zip, coordinate ...

Selection

- CadastralWebMap
- Opacity: 100%

Catalog [INSPIRE]

Cadastral parcels

Item	Info	Select
Building zones Switzerland (harm.)	i	<input type="radio"/>
Cadastral surveying lots.	i	<input type="radio"/>
Cadastral surveyor	i	<input type="radio"/>
CadastralWebMap	i	<input checked="" type="radio"/>
Information about Municipality	i	<input type="radio"/>
Land registry information	i	<input type="radio"/>
Low distortion area	i	<input type="radio"/>
Status of cadastral surveying	i	<input type="radio"/>

Surface representation

Area and population

Infrastructure and communication

50 m

(c) Data: swisstopo, Cadastral Surveying Switzerland/FL

CH1903 / LV03 | Coordinates (m): 599348, 198423

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Information about Municipality	i	<input type="radio"/>
Land registry in formation	i	<input type="radio"/>
Low distortion area	i	<input type="radio"/>
Status of cadastral surveying	i	<input type="radio"/>

Surface representation

Area and population

map.geo.admin.ch/#communication

CH1903 / LV03 Coordinates (m): 599504, 198359

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Issues

- full coverage of country (digital coverage at approx. 85%)
- adaptation of geodetic framework (to get rid of distortions and to adapt to GNSS)
- land registration rather reluctant to new IT possibilities, no common vision together with cadastral surveying
- system still producer-driven rather than user-driven
- fee structure is cantonal, hindering the introduction of efficient product- and service-oriented solutions



On-going projects

- centralized address data
- 3D cadastre (3D property information), underground elements seem to be more urgent
- RRR → establishing «cadastre on public-law restrictions» (an additional 17 information topics)
 - 8 pilot cantons to finish until 2015
 - remaining 18 cantons until 2020
- Think Tank to monitor trends and to look into the future of the cadastre; discussion topics are:
 - open government data
 - reduce to the max.
 - embracing rather than fighting synergies (topographic mapping, crowd-sourced data, etc.)
 - linked data (IP number for every parcel?)