



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Office of Topography swisstopo
Federal Directorate of Cadastral Surveying

wissen wohin
savoir où
sapere dove
knowing where

The Federal Organization of the Swiss Cadastral System



C+LR KEN – 20 March 2015

Marc Nicodet



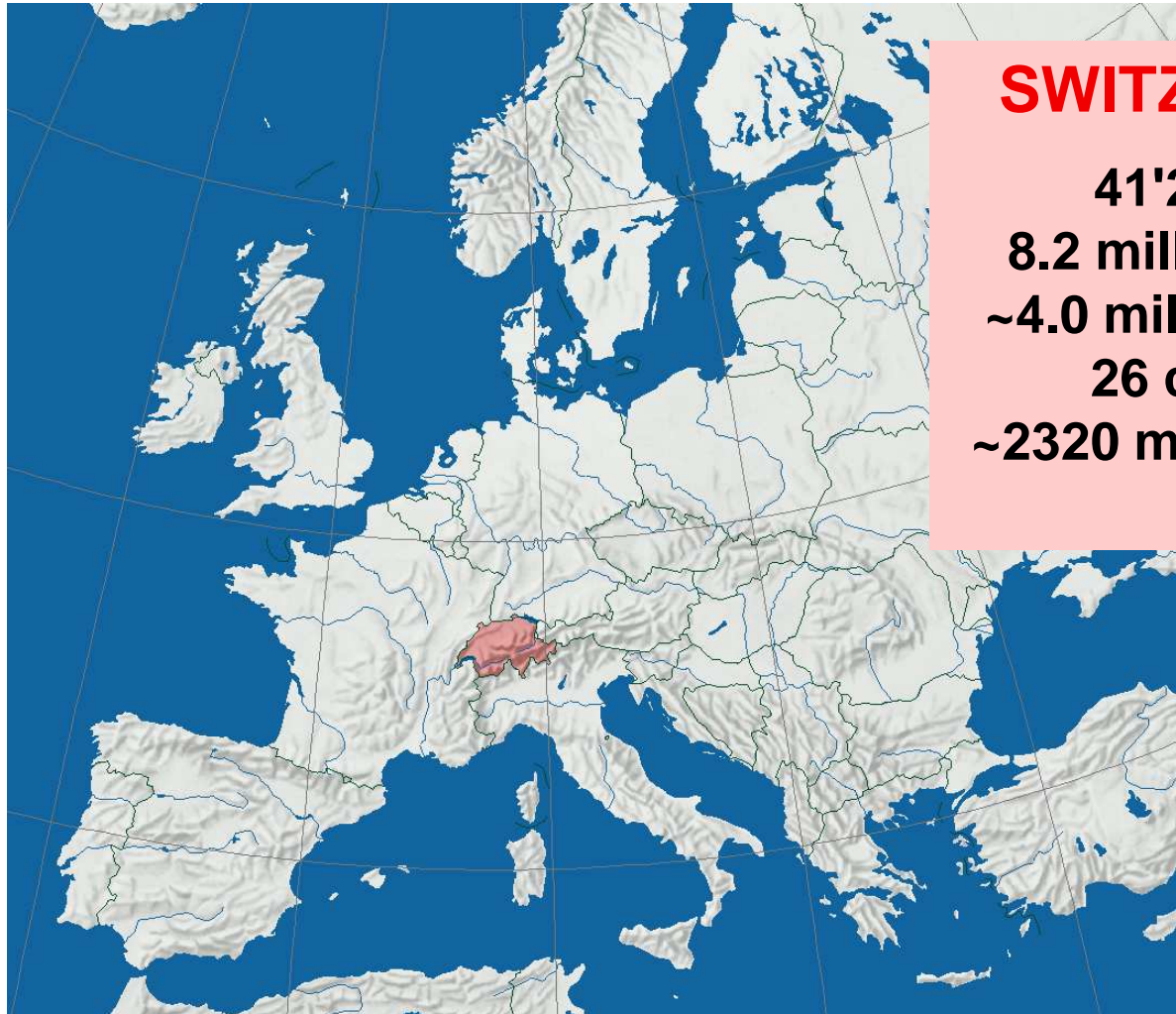
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- **Switzerland**
size, shape, structures
- **Cadastral system**
legal basis, basic principles, conceptual elements
- **Organisation**
cadastral system, cadastral surveying
- **Challenges**



Basic Cadastral Dimensions



SWITZERLAND

41'290 km²

8.2 million people

~4.0 million parcels

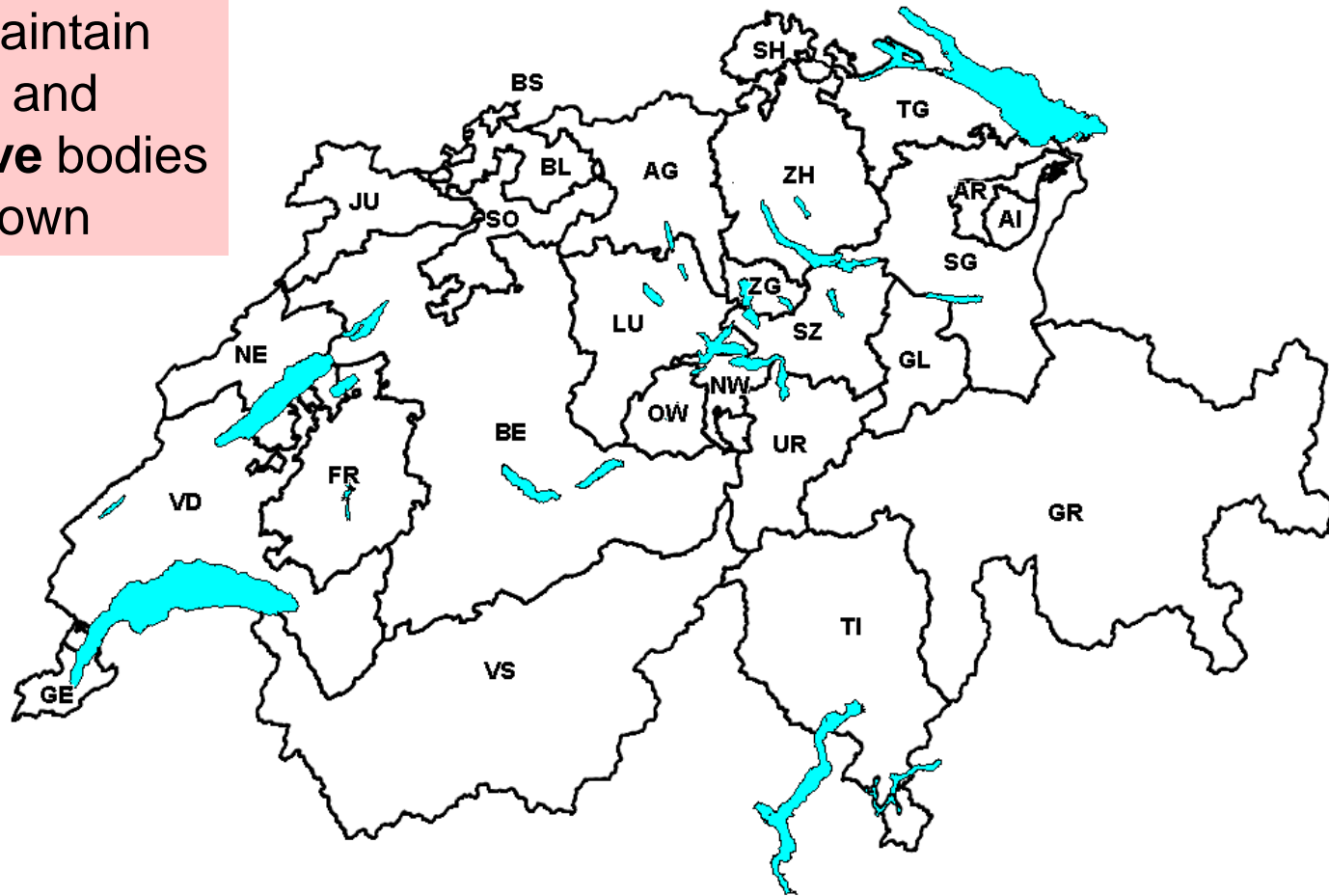
26 cantons

~2320 municipalities



Federated Country with 26 Cantons

Cantons maintain
political and
administrative bodies
on their own





Principle of Subsidiarity







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Basic Principles (Swiss Civil Code, 1912)

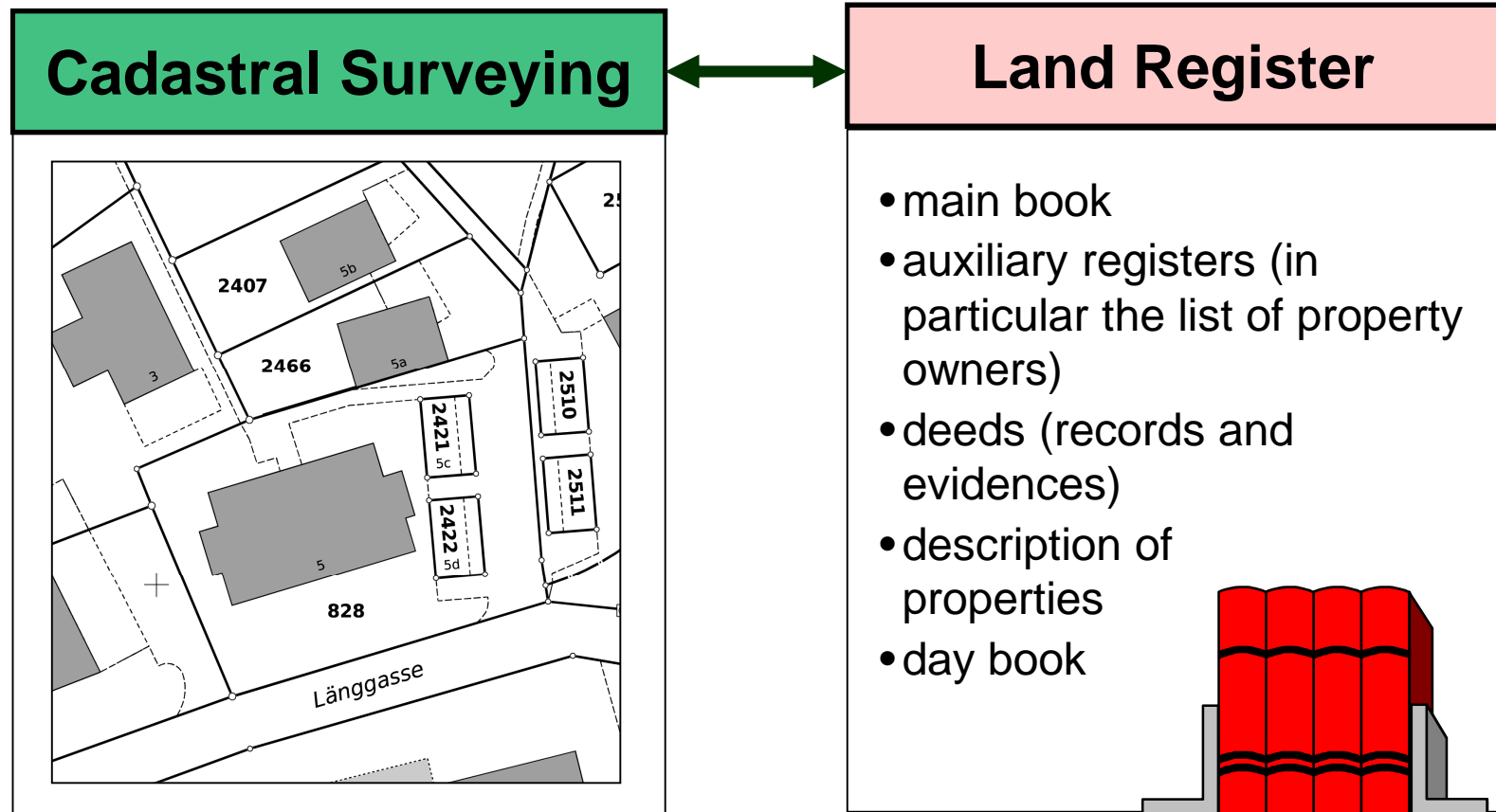
- **No ownership without registration** (art. 656)
- **No registration without surveying** (art. 950)
- **No surveying without boundary definition** (art. 669)

➤ **Title registration system**

➤ **Title guaranteed by the government**



“Old” Swiss cadastral system





New legislation



Ordinance on cadastral surveying (1993)

- The data of cadastral surveying shall serve as basis for **the establishment and the operation of land information systems** and shall be suited for public and private purposes.

Act on Geoinformation (2008)

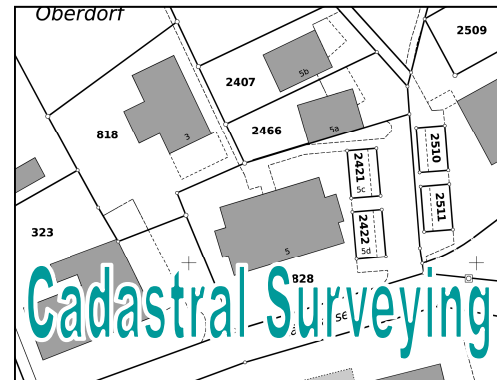
- a **uniform legal basis** for all land information based on the various federal decrees
- incl. cadastral surveying, national surveying (topographic mapping), national geology, and the new **cadastre for public-law restrictions on landownership rights (PLR-Cadastre)**



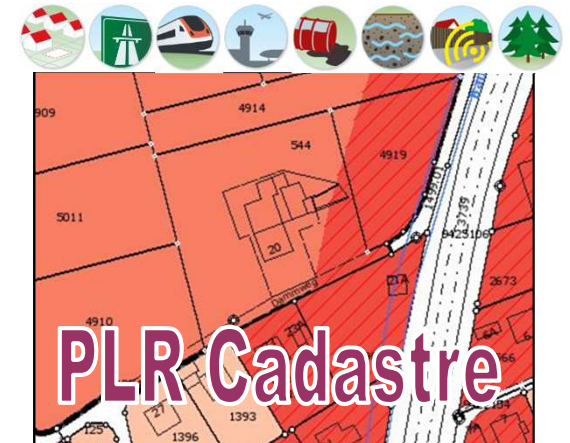
“New” Swiss cadastral system



guaranteed by



restricted by





Conceptual elements of AV93

- Clear **definition** of the product
- Freedom of **methods** and systems
(as basis for tendering)
- Independent **information layers**
(link between layers only through geographic location)
- Standardized way of **data description**
and data transfer (INTERLIS)

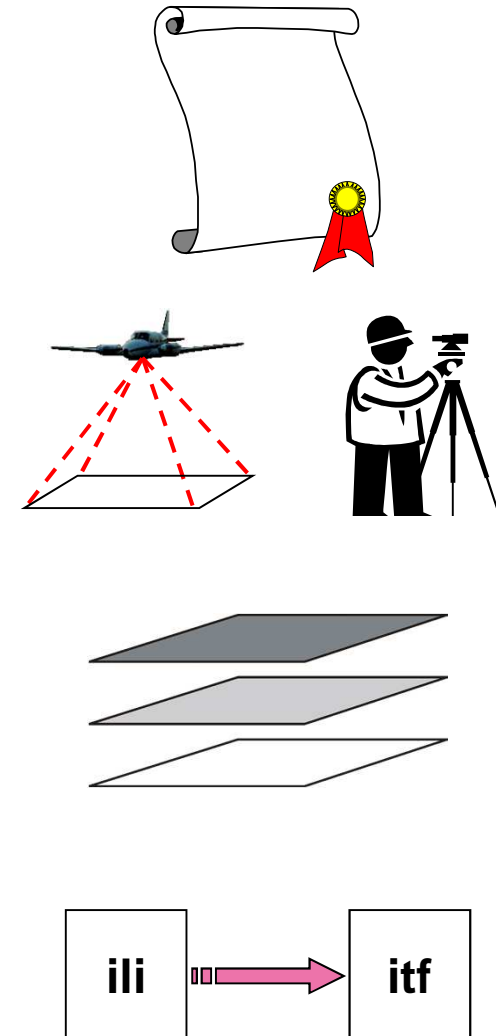




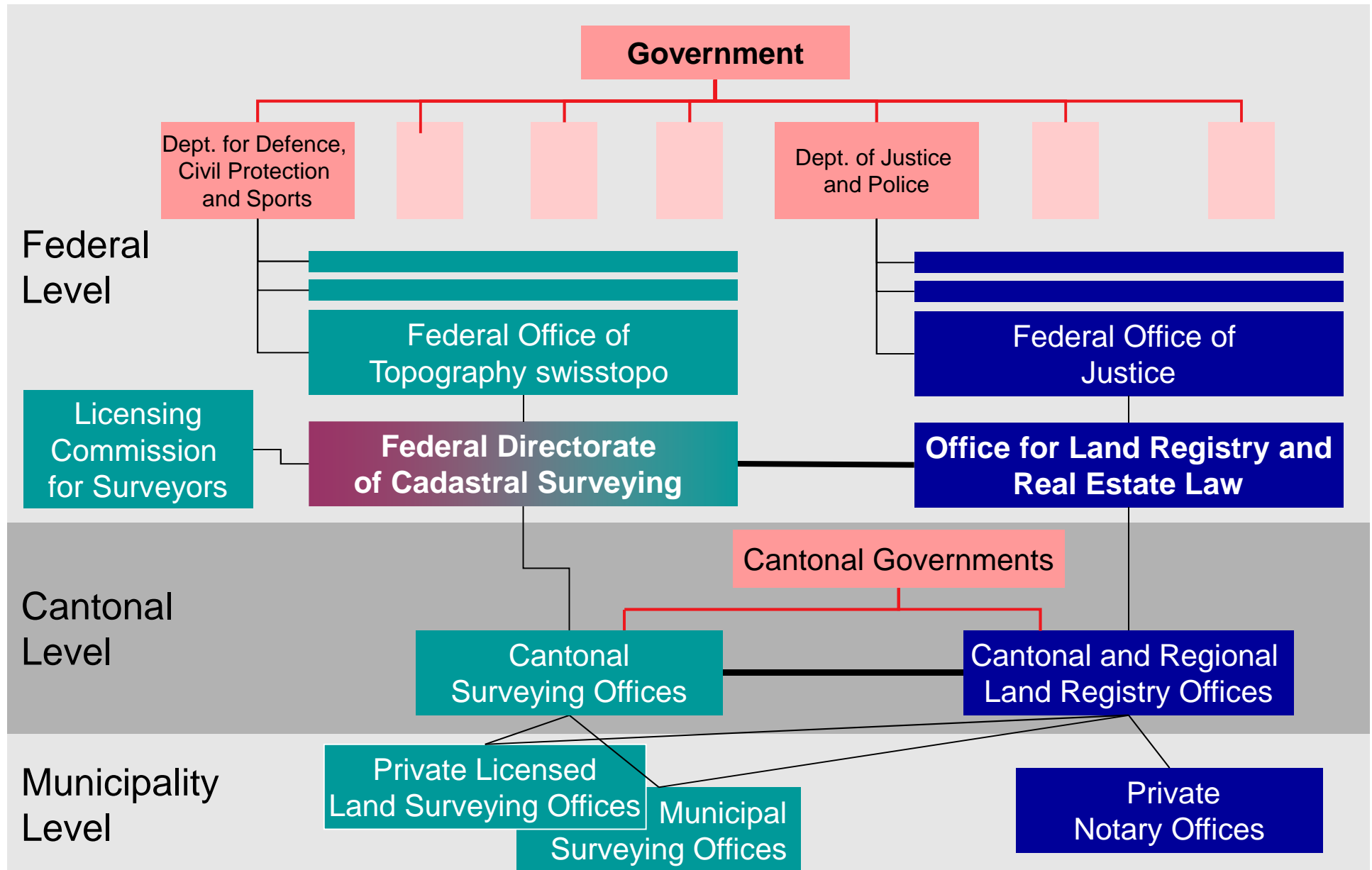
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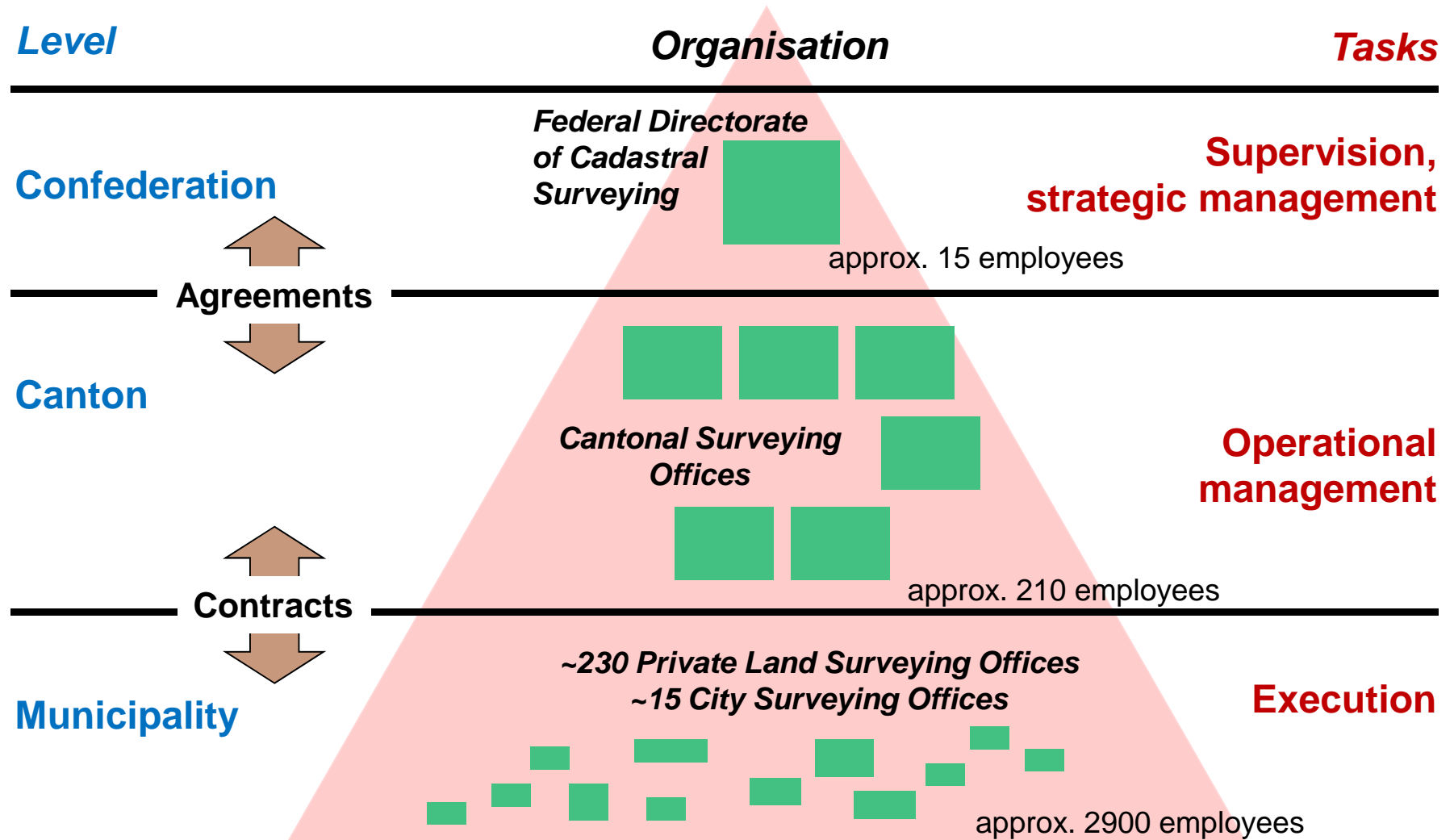


Organisations involved in cadastral system





Organisation of cadastral surveying

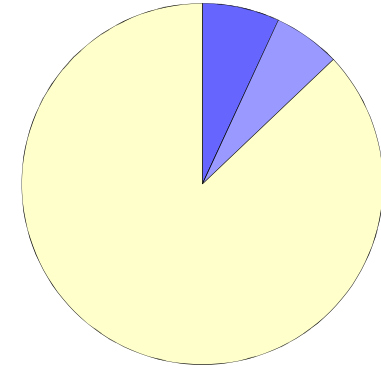




Public-Private Partnership in Swiss Cadastral Surveying

No. of staff active in cadastral surveying: **3'150**

- federal and cantonal administration: 6.7%
- other public sector offices: 5.7%
- private sector offices: 87.6%



Public Sector

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



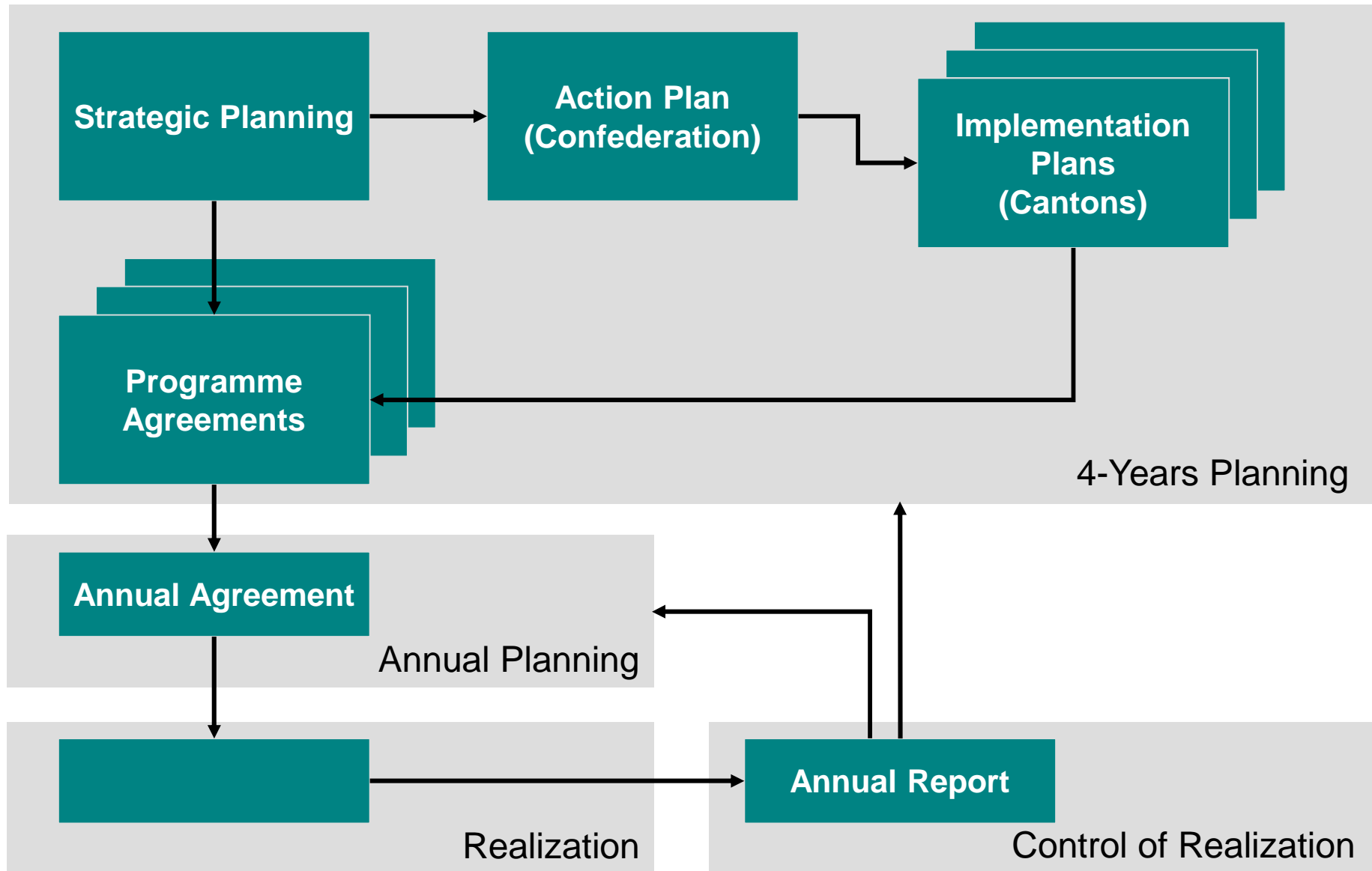
Private Sector

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

Two Partners !!!

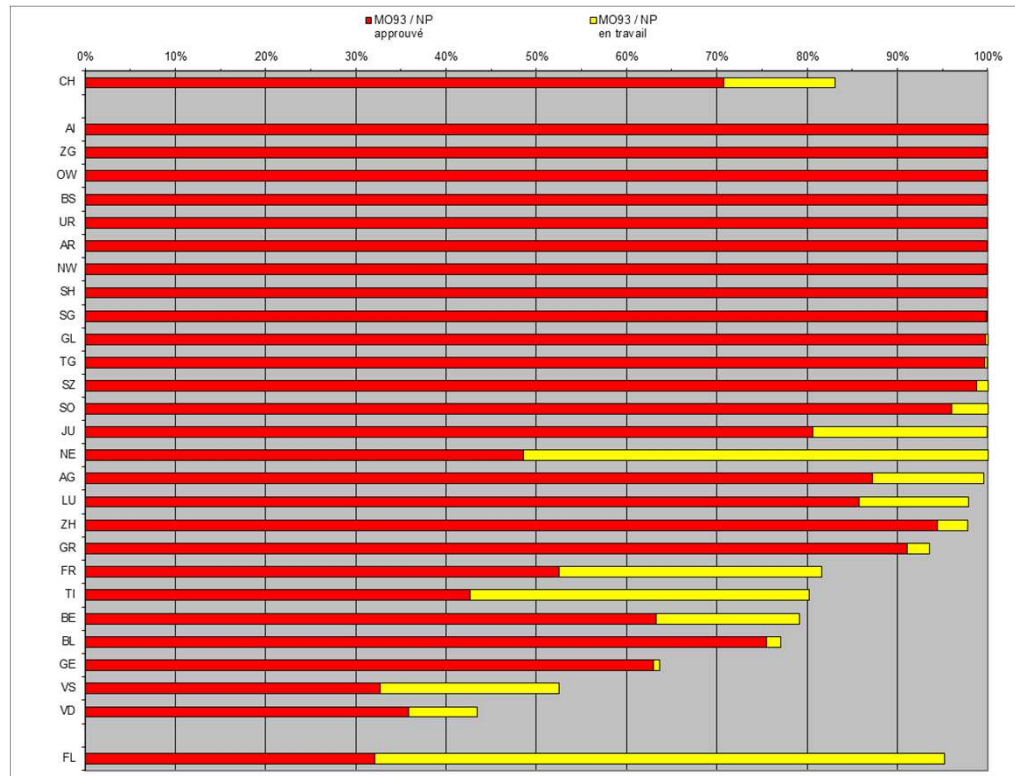


Public Sector: Controlling System





Public Sector: “Individual” Planning



Digital Data:
Completion
status in the
Cantons

- 4 levels of accuracy (urban → rural → mountainous)



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Issues that remain to be solved

- legal basis on federal level allows for amendments by cantonal regulations
⇒ **inhomogeneous data** with **26 cantonal specialities**
- clients that need data across the whole country will have to talk and negotiate with **26 data owners**
- co-financing (federal subsidy for initial survey: 15% - 45%) also means a right to say
⇒ **joint responsibility** cannot really be planned and managed



Institutional issues - Statement

- **Incomplete coverage**: is a primary target in the strategy of cadastral surveying for many years
⇐ lack of financial resources of the cantons and municipalities
- Majority of problems can be traced back to the fact that cadastral surveying is organized as a **joint responsibility** between the federal and cantonal levels, with distributed management tasks.

**⇒ the federalist / decentralized system
certainly has advantages, but it needs
to be re-defined**



Solutions?

- Confederation:
 - Reduce the object catalogue but finance it to 100%?
- Public sector:
 - Centralize all the activities?
 - Create 4 or 5 regional offices?
- What are your experiences with other organization systems?
Advantages? Disadvantages? Advices?



Thank you for your attention!



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