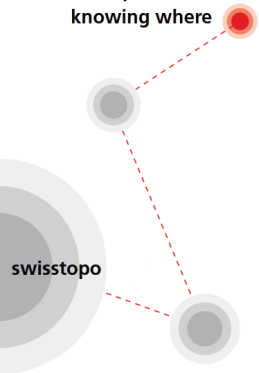




Schweizerische Eidgenossenschaft
Confédération suisse
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Confederaziun svizra

Bundesamt für Landestopografie swisstopo
Geodäsie und Eidgenössische Vermessungsdirektion

wissen wohin
savoir où
sapere dove
knowing where



Macro-Economic Dimensions of the Swiss Cadastre – A few glimpses

PCC Conference 2019
Helsinki, Finland, 21 Nov. 2019

Dr. Daniel Steudler
Scientific Associate



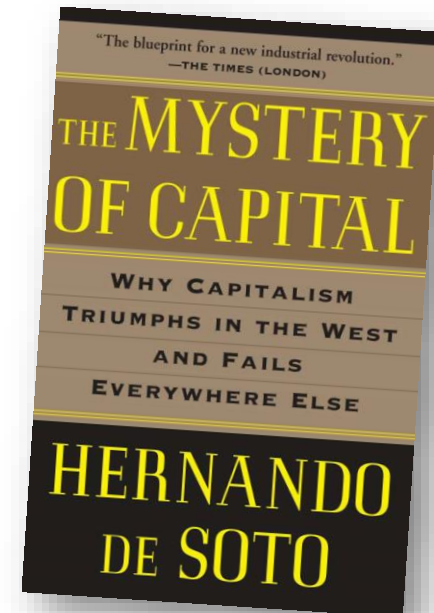
Benefits of a Cadastral System

- Feder and Nishio (1999). **The Benefits of Land Registration and Titling: Economic and Social Perspectives.** Journal for Land Use Policy.
 - landownership brings incentives to invest, and in consequence increased land productivity
 - formal land titles reduce the risk for investors to invest
 - better productivity per unit of land
 - empirical evidence from Latin America (doubling the investments and amount of credits), rural Thailand, urban Philippines, urban Indonesia, rural India, and rural Africa support these statements

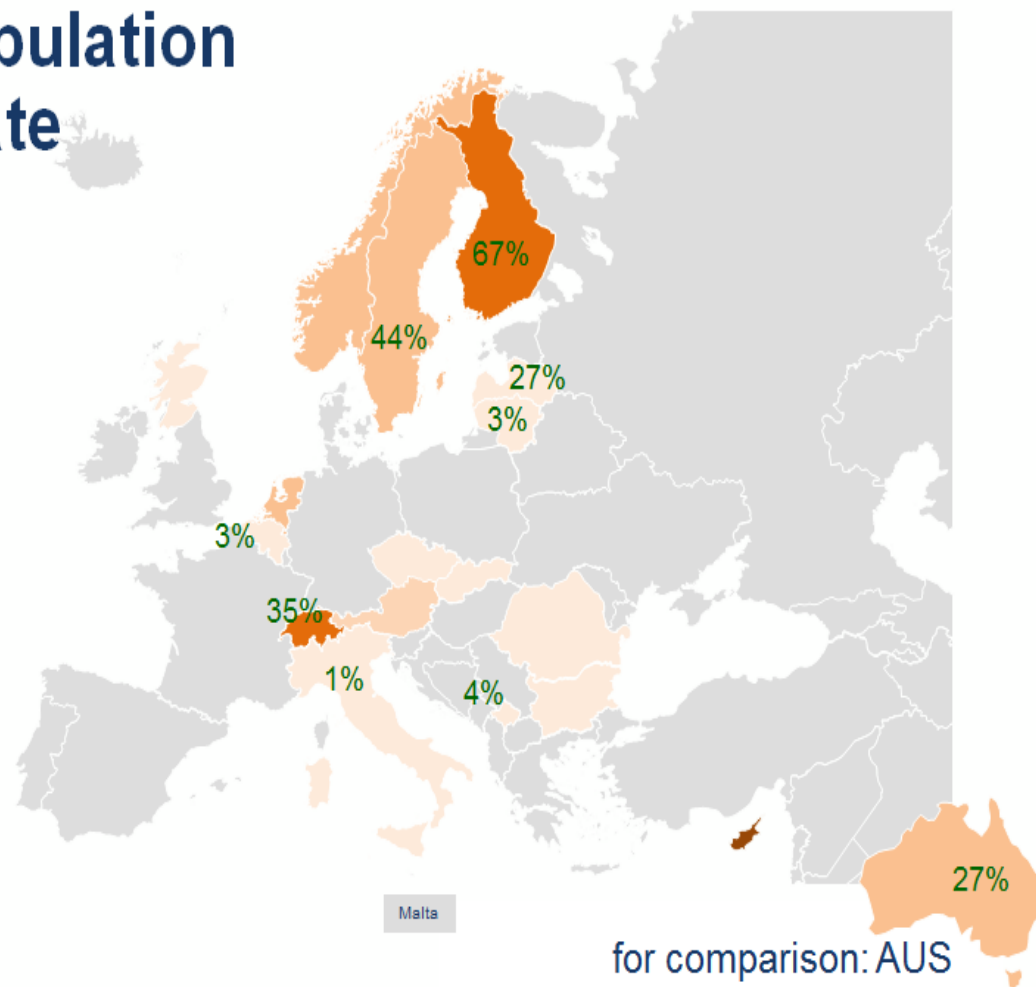
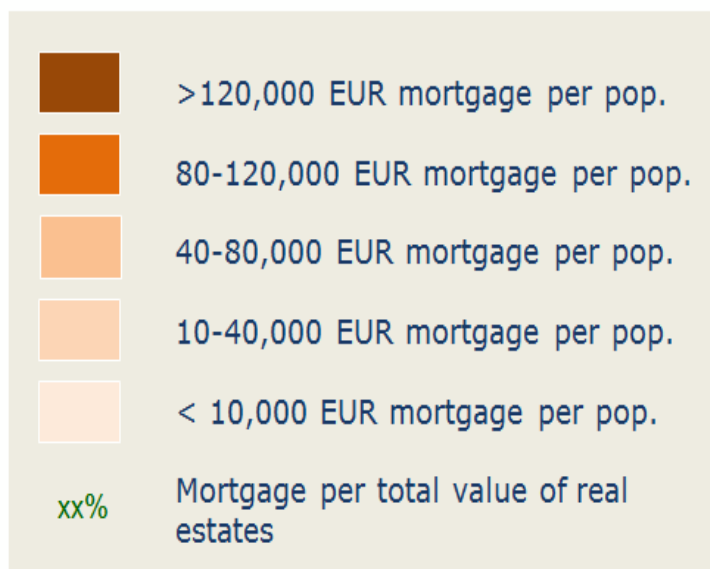


Benefits of a Cadastral System

- De Soto (2001). Case study from Peru: value of national telephone company increased from 53 million to 2 billion USD just by bringing it into the formal land registry system.



Q11/12) Mortgage per population and per value of real estate



From PCC Conference, Bucharest, June 2019



Legal basis for cadastre and geoinformation

Year	Legal act	Purpose
1912	Civil code	Security of ownership, efficient land market, and mortgaging of real estates
1919	Instructions for cadastral surveying	Definition of standardized methods
1993	Ordinance on cadastral surveying	Digital format of cadastral surveying, extension of purpose beyond land registry to information systems
2004	New article in Constitution	Stronger legal foundation for national surveying, cadastral surveying, and geodata infrastructures
2008	Law on Geoinformation (GeoIG)	<ul style="list-style-type: none">•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 (PLR-Cadastre)





Swiss civil code (in force since 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.

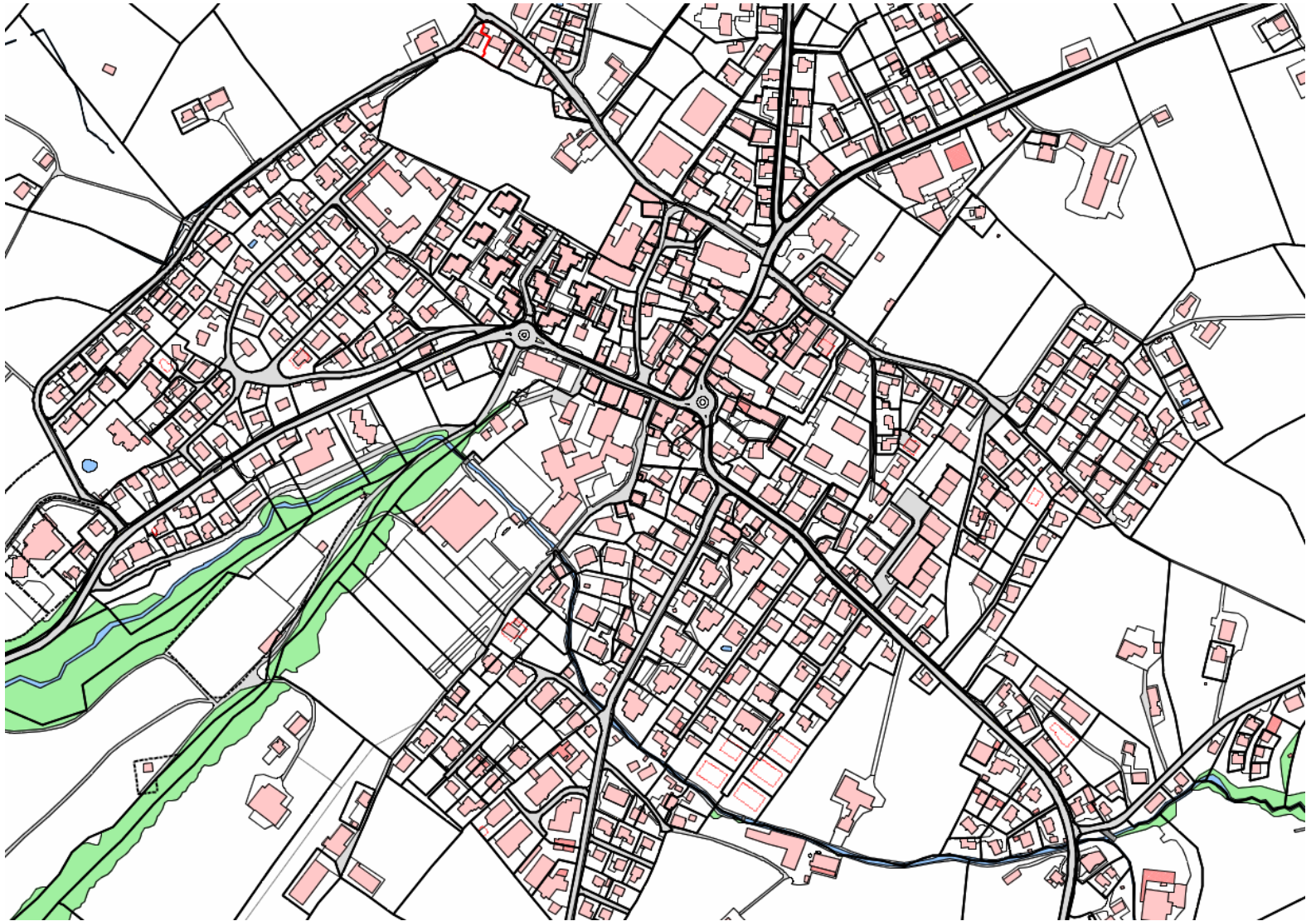
Art. 950

- 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.





Systematic approach





Impact of PLR-Cadastre on Mortgage Volume



The Swiss cadastral system secures real estate values in the order of EUR 2,000 billion, of which approx. EUR 800 billion of mortgages are given out (close to EUR 100,000 per population).

The additional documentation of Public-Law Restrictions (PLRs) potentially can improve transparency and security of landownership. If the effect is 0.1%, this would correspond to an increase of the mortgage volume of EUR 800 million.



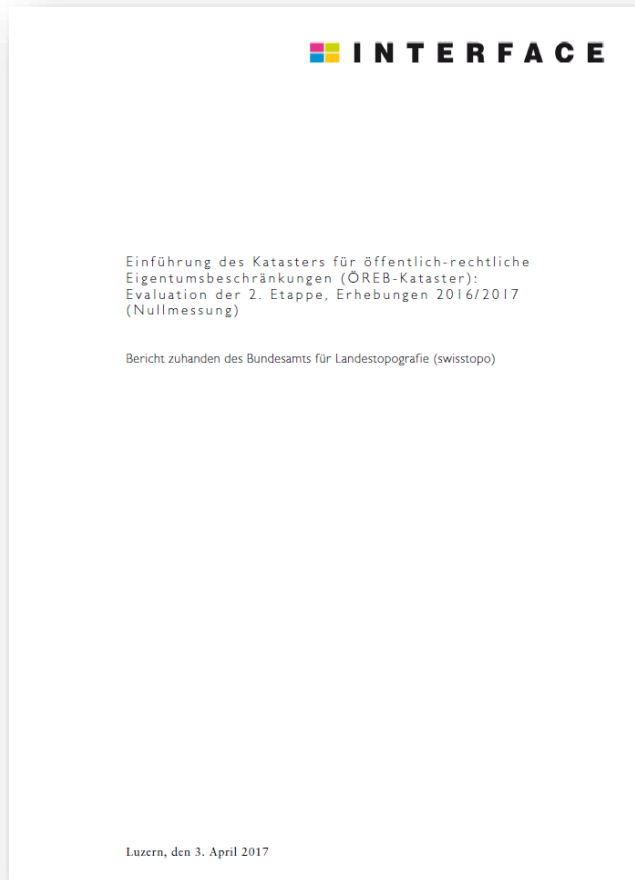
Cost/Benefit Study for PLR-Cadastre (2006)

- estimated costs: for implementation and operation: 95 – 337 million CHF for the first 20 years
→ 10-20 million CHF per year
- expected benefits: better transparency in legal terms and for land market, lower risk for banks, lower interest rates for mortgages, new innovative products that become possible
→ positive effects of approx. 100 million CHF per year

- Stefan Rieder et al. (2006). Kostenschätzung der Erstellung eines Katasters der öffentlich-rechtlichen Eigentumsbeschränkungen (ÖREB); Studie vom 30. Januar 2006 im Auftrag des Bundesamtes für Landestopografie.
- Erläuternder Bericht zur Verordnung über den Kataster der öffentlich-rechtlichen Eigentumsbeschränkungen (ÖREBKV) vom 2. September 2009, Kap. 1.1.5.



Evaluation of PLR-Cadastre (2017)



- Mandate by law (GeolG) is to evaluate the PLR-Cadastre with regard to:
 - need
 - expediency (fit-for-purpose)
 - effectiveness
 - economics
- 1st evaluation in 2017
- 2nd evaluation in 2021

- INTERFACE (2017). Einführung des Katasters für öffentlich-rechtliche Eigentumsbeschränkungen (ÖREB-Kataster): Evaluation der 2. Etappe, Erhebungen 2016/2017 (Nullmessung), Bericht zuhanden des Bundesamts für Landestopografie (swisstopo)



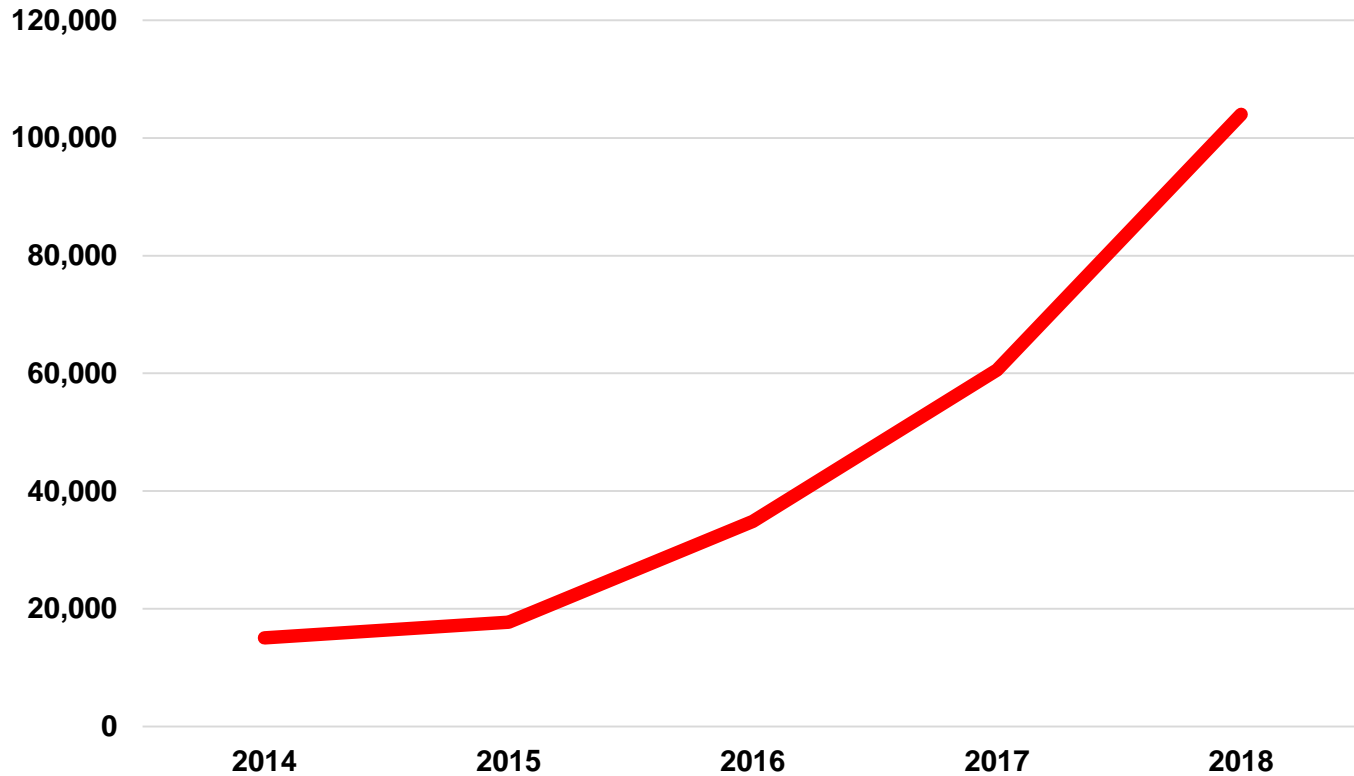
Results of Evaluation 2017

- The **need** for a centralized availability of PLR data is evident among the target groups.
- The PLR cadastre is already at a level of quality where it can be considered to be **suitable**.
- For the majority of users in the target groups, there already are considerable gains in **efficiency**. For example, the cantons' operating costs can be offset against the higher benefits that the three main target groups (municipalities, notaries, surveyors) are reporting.
- A cross-comparison of target groups in cantons with and without the PLR-Cadastre shows that the PLR-Cadastre is having an **economic** impact.



User Statistics

Static Extracts



From: Annual Reports of the Cantons



Economical Aspects of Further Extensions

- cadastre of underground utilities
- 3rd dimension

→ *not done yet*



However...

We should not forget that land has not just an **economic** dimension only. There is also a **social** and **environmental** dimension of land!

“The western idea of private property is flawed. Indigenous peoples have it right” (Julian Brave NoiseCat, The Guardian, 27 Mar. 2017):

- Indigenous people have believed it all along: land and water are sacred, living relatives and ancestors whose well-being humanity depends upon for our continued health and existence upon this earth.
- Between the productivity of property and the recognition of indigenous rights and the rights of nature, there lies the potential for a more just future for the land, the water and their human relations.



Thank you for your attention!



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