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wissen wohin
savoir où
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knowing where




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Developments out of Cadastre 2014 – Internationally and in Switzerland in Particular

XXV FIG-Congress 2014
Kuala Lumpur, Malaysia, 16-21 June 2014

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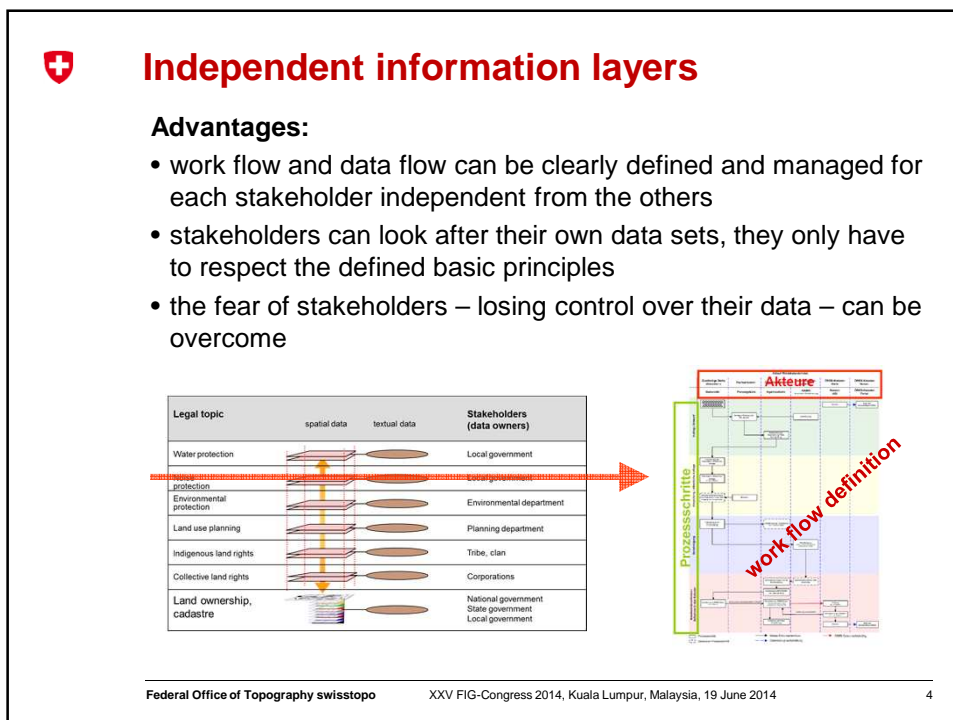
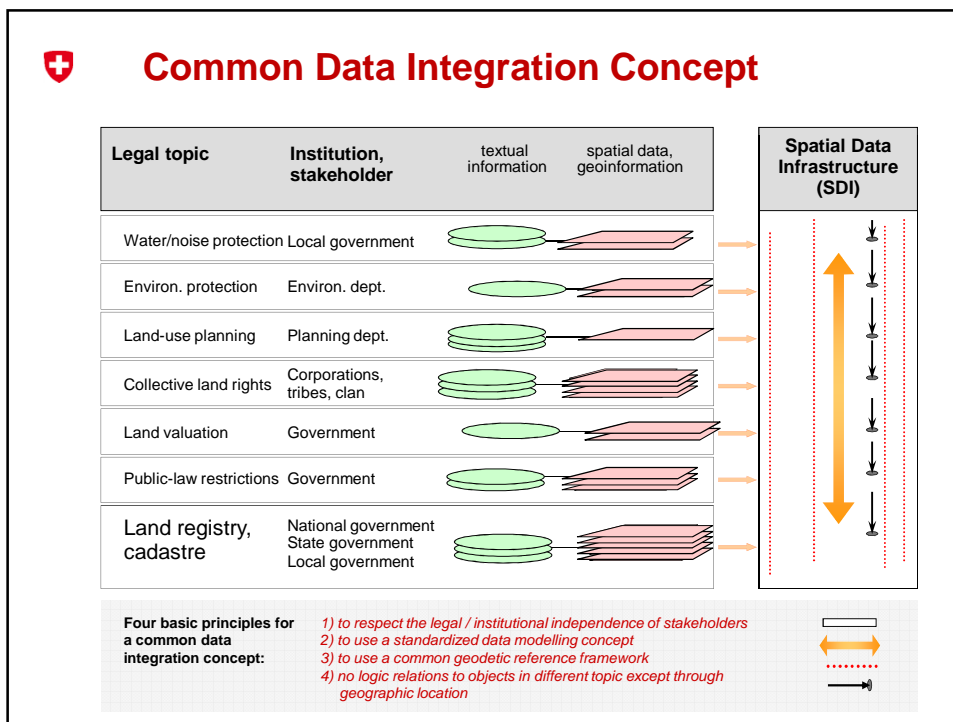
Cadastre 2014: Developments internationally

- translations into some 25 languages
→ www.fig.net/cadastre2014/
- topic at several conferences, even up to the year 2014
- initiative by Bennett et al.
- Land Administration Domain Model (LADM) and Social Tenure Domain Model (STDM)
- Spatially Enabled Society (SES) with 6 key elements without which a society is not spatially enabled:
 - legal framework
 - data integration concept
 - positioning infrastructure
 - spatial data infrastructure
 - land ownership information
 - data and information principles

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Developments in Switzerland

- «Cadastre 2014» initiative by the **private sector** to include public-law restrictions; this did not find much support by public authorities initially, but discussion have been kick-started
- Studies, expert groups, and mainly the new «Act on Geoinformation» (2008) paved the way to the understanding that **all spatial information is to be included into a National Geodata Infrastructure**
- In 2012: start of new «**Cadastre of Public-Law Restrictions on Landownership**», to be accomplished fully by 2020 (first 8 pilot cantons are online since early 2014)
- **Think Tank** «Dimension Cadastre» since 2013

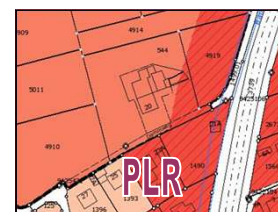
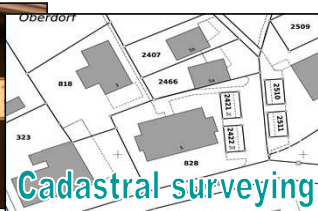


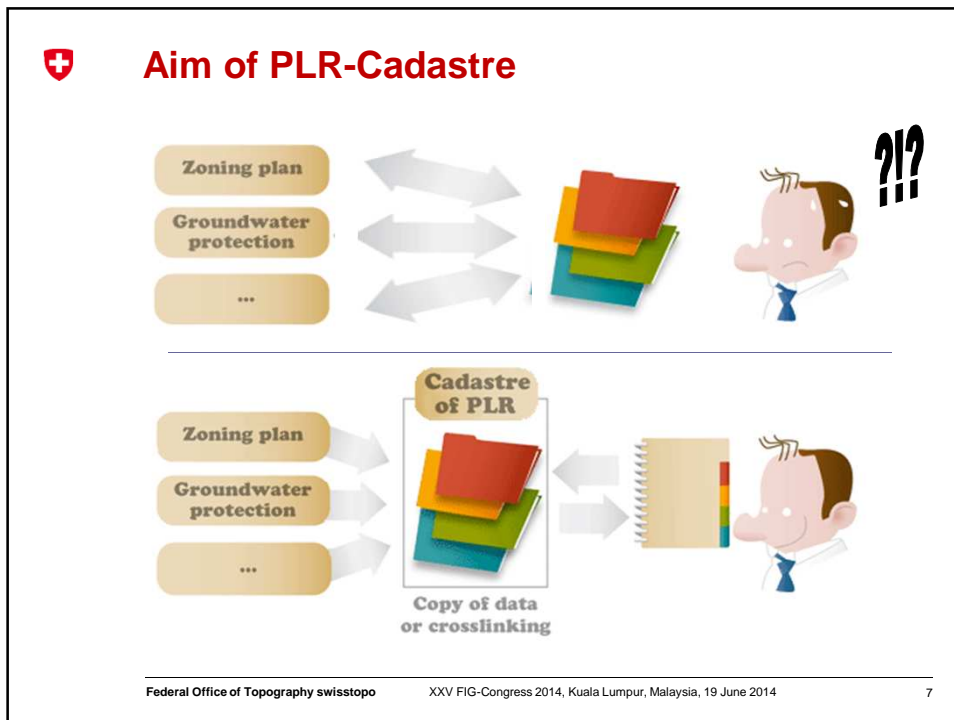
Landownership: legal security



secured through

restricted by





Start with 17 Public Law Restrictions

PL-Restriction	Institution, stakeholder	textual information	spatial data, geoinformation	PLR-Cadastre
Cantonal and municipal use planning	Land-use planning Dept.	→	→	→
Project zones Construction lines	National Highway Dept.	→	→	→
Project zones Construction lines	Railways	→	→	→
Project zones Construction lines Aerial obstacles	Airport authority	→	→	→
Hazardous waste	Environmental Dept.	→	→	→
Ground water protection zones Ground water protection perimeters	Water Management	→	→	→
Noise levels	Environmental Dept.	→	→	→
Forest delimitation (in constr. zones) Forest distance lines	Forest Dept.	→	→	→

The table lists 17 public law restrictions, their respective institutions, and how they contribute textual or spatial data to the PLR-Cadastre system. The PLR-Cadastre is represented by a stack of documents with arrows indicating the flow of information.

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Think Tank «Dimension Cadastre»

- Internet of Things
- URI / IP number per parcel
- Big Data / Data Mining
- ubiquitous mobility
- 3D / 4D
- crowd-sourcing, support by citizen, augmented citizen
- legal vs. legitimate
- dynamic model, acceleration of updates



→ First Report in 2014: «**Beyond Limits – Go 4 Dimension Cadastre**» in 4 languages D, F, I, E (www.cadastre.ch/vision/)



In Conclusion

- the success of «Cadastre 2014» went far beyond our expectations
- Cadastre 2014 is not out-dated, it is very much fit-for-purpose:
 - proposed data modelling concept allows for a lean, modular, and thus flexible cadastral and land administration system
 - the four basic principles for data integration allow for an adaptable, but stable SDI, respecting the stakeholder rights
- Cadastre 2014 is versatile and provides tools for solutions



