The impact of digitization: how participatory will the cadastre function be in the future?

Martin Salzmann
Cadastre, Land Registry and Mapping Agency
The Netherlands

Common Vision Conference “Tradition meets Innovation”
Vienna, Austria, October 5-6, 2017
View of the world

Socio-Economic

Physical

Digital

People

Cadastres have digitised their processes and data
Now the cadastres are digitized
The impact of digitization

We go forward looking in the rearview mirror. 
quote of Marshall McLuhan

We have digitized all the separate steps in the cadastral function
So have all others parties in the land market
Looking back and predicting forward no longer presents us the future

So what will the future look like and how participatory will it be?
Real estate transaction chain in the Netherlands

CITIZENS (buyer, seller)

- Real Estate Agencies
- Valuators
- Intermediaries
- Banks
- Notaries
- Kadaster
- Inland Revenue

How participatory will the cadastre function be in the future?
Changes

Certainty at the start:
✓ Property technically fit
✓ Seller legally fit
✓ Buyer legally fit
✓ Buyer financially fit

Digitization
Data management
Digital ledger (blockchain)
Personal and object information

GDPR (general data protection regulation): privacy

Intelligent objects

How do we organise
- Personal Data Management
- Object Data Management

kadaster
View of the real estate agent
sell your own house

Participatory or do-it-yourself?

How participatory will the cadastre function be in the future?
Securing your loan

How participatory will the cadastre function be in the future?

- **do-it-yourself** (€495)
- **be advised** (€2300)
Notary self service
preparing your deed of conveyance

How participatory will the cadastre function be in the future?
Observations

• All parties in the land market allow some form of do-it-yourself; but still limit this process to their own domain
• This approach does not solve the demand for overall certainty at the start
• All data and documents are available digitally and are shared under existing protocols
• Personal data and object management are not in place

What about the next step, looking forward?
All parties become participatory wrt data

Formal data

Informal data

buyers, sellers, estate agents, banks

authorities
intermediaries (professional crowd)

buyer, seller (public crowd)

network based protocols and rules, with transparency to the land market to provide trust

OLD
NEW
Example: preliminary boundaries

Notaries draw preliminary cadastral boundaries

*professional crowd*

The cadastral surveyor verifies and measures the boundary after transfer of the property

Example of a participatory approach
Real participation in practice
(voluntary) land reallocation

Rural areas

Urban areas

How participatory will the cadastre function be in the future?
Co-creation in reallocation

Flexible and fast
High level of participation
High end technological support
Concluding Remarks

- All parties are digitally enabled
- Redesign transaction chain to a transaction network to make it more flexible and faster from the start
- Set up operating rules for the network including PDM and ODM with clear data-sharing principles while maintaining transparency in the land market
- Learn from participative examples, where parties can serve their interests under rules of engagement and law