



ORDEM
DOS
ENGENHEIROS



Cadastre 4.0

A demand for the future

Gerda Schennach, Austria
Chair of FIG Commission 7



Commission 7 Geoconference Cadastre 4.0

25 Oct 2016, COIMBRA | Portugal

1



ORDEM
DOS
ENGENHEIROS



Cadastre 4.0 is a system based on fully automatically processing within a network surrounding of people and devices embedded in technological intelligence

The aim is to get to a self-operating structure built upon intelligent devices and procedures and data collections where the demand is defining the process instead of building upon defined and fixed processes.

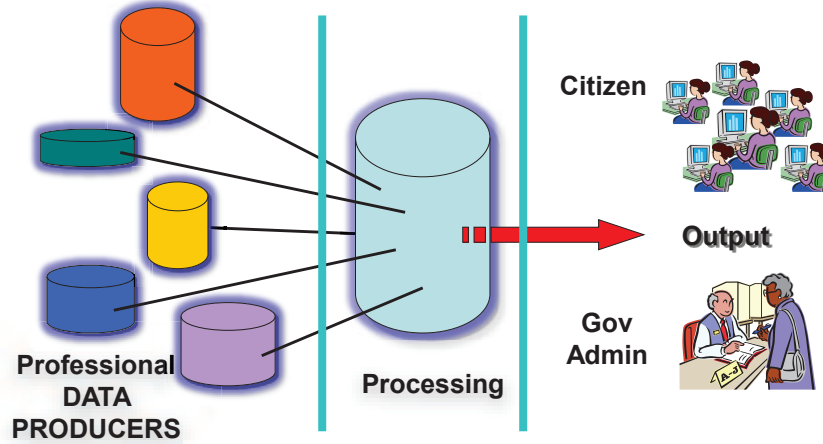


Commission 7 Geoconference Cadastre 4.0

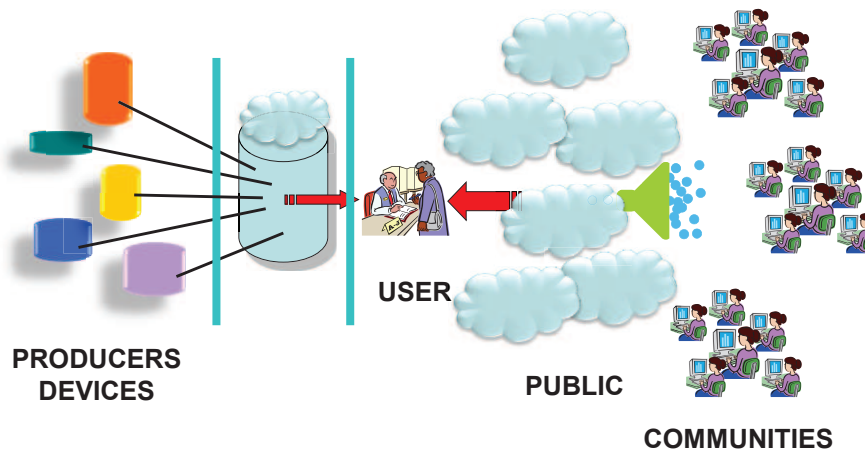
25 Oct 2016, COIMBRA | Portugal

2

The linear cadastral model.....



.....turning into an inverse model





The changing paradigm

Cadastre for Society gets created by Society

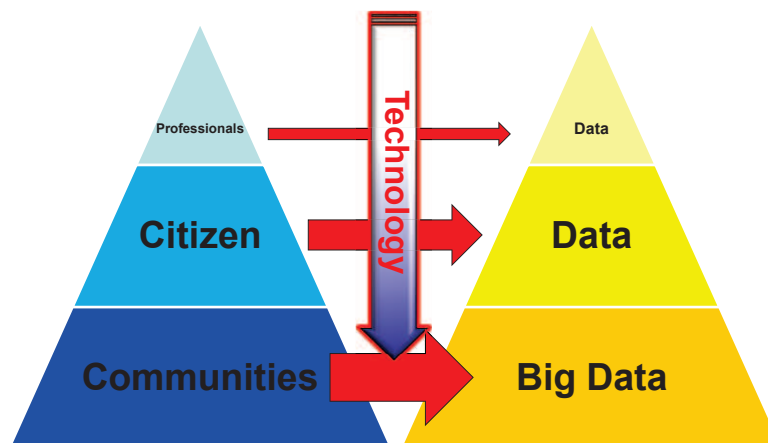
- **technology** is available and cheap
- **new type** user society growing
- land owners get **active** information providers
- citizen as **passive** data providers

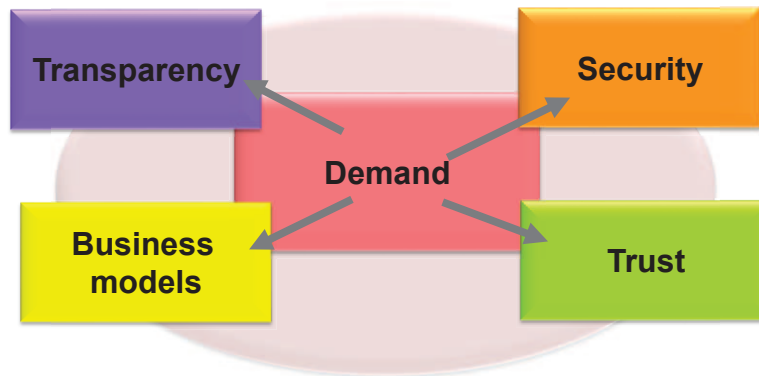
Stakeholders become Decisionmakers

- user profiles changing **communities**
- community creates their own "**regulations**,"
- **standards** set by communities

Citizen become Shareholders

- communities are **core part** of the (formal) processes
- citizen are **owner** of information
- **self-monitoring** systems secure fit-for-purpose - quality





Step by step towards Cadastre 4.0

- everyone produces and publishes everything
- data are accessible for everyone
- data reflect reality ≠ legal status
- shift of power from public authorities to communities
- data are public (community) good
- business models no longer valid
- change of paradigm for professionals
- work is no longer bound to location of land
- challenge to role of public agencies and private professionals
- land owners equal partners in systems



Why Cadastre 4.0?

- internet of things / VGI / sensors e.a. for added value
- smart procedures for selective processing of big data
- integrated processes to maintain cadastral systems
- self steering processes increase security for users
- product – people – private – public equal partners
- smart systems – automatic acquisition of data and information
- services on demand by users
- datasets know at their creation where they will be integrated
- flexible processes – defined in moment of request
- land owners may be big players in systems

Cadastre 4.0

Characteristics:

- ❖ decentralised steering by demand (users)
- ❖ users and stakeholders participate directly into the processes
- ❖ self-optimising processes and systems
- ❖ self-monitoring system
- ❖ transparent to users ► citizen ► land owners
- ❖ system finds data which is needed/appropriate from relevant data stock

The role of the profession

