1 ABSTRACT
The state is influencing the real property and property rights in Europe\(^1\) often through Land Administration (LA), which serves as overall term for functions provided by land registry, cadastral, valuation and others which are influenced and controlled by the state. Nowadays an advanced land administration means more improving and tuning procedures and inter-agency cooperation than only introducing tools like databases, GIS and networking. The real challenge is the cooperation of different professions like surveyors, lawyers, registrars and valuers on the common tasks: “Land Administration”. On international level initiatives like UN-ECE - Working Party on Land Administration (WPLA) bring awareness to the ongoing administrative, legal and technical changes. Initiatives like the “European and Central Asian Initiative on Property Rights” and new post graduate courses like “Land Management” have to be mentioned in order to complete the picture.

The state should not only benefit from LA, but can also force stability and security of the real estate market by legislation and services which is done in several states by guaranteeing information, title, ownership or even parcels. Taxation, valuation and reduced transfer costs can also force a sustainable real estate market. Lower transfer costs and higher property tax could force higher exchange rates of real estate. The long term tradition in some countries however stands in contradiction to that fact.

LA AS A NETWORK OF COOPERATION
LA within a country can be visualized as entity - relationship model of acting institutions and relations between them. On the data level we are dealing with information about persons, rights and objects. The corner stones of land policy are involved persons, money, rights and objects.

Cadastre and Land Registry are handling information about persons, objects, and rights as legal relations between them. Real estate data should be public to everyone even when data about persons are protected by the law on privacy in some countries.

LA AS A PART OF A NETWORK
LA is just a tool for the land market. But how it comes that in one country the market improves faster than in the other one? Within the following chapter LA in some European countries will be analysed. However before that some structural principles should be highlighted.

LA is one pillar within the overall “building” of a Land Market. LA is not only defined by data (entities) and relations but also by procedures and institutions involved.

Usually there is awareness about streamlining procedures within each institution. However there is less attention about streamlining the inter-agency of procedures. For customers this means often having to deal with an institutional slalom to achieve their goal. Subdivision of a parcel is not the final aim of a customer. Usually the customer wants to build or improve a construction. Approaching that aim means for him: collect information about property rights and any public rights linked with a real property,

\(^1\) GERALD MCGRATH: cadastral implementation in eastern Europe and the CIS, Department of Surveying, University of Otago, Dunedin, New Zealand, 1998.
apply for subdivision, apply for demolition and building permit, apply for credit and mortgage and so on. All that is always linked with fees and taxes.

In many counties all this is administrated by using the customer for transferring documents between all the different agencies. The notaries in Austria decided to follow a market oriented approach. Nowadays it is possible for the customer to transfer a property at a notary within half an hour. The notaries design the contract, act as trustee, collect the transfer tax on behalf of the Tax Office and collect the registration fee for the Land Registry. I miss a similar approach initiated by licensed surveyors. Geoinformation was at the beginning very much linked with the surveyors. However instead of focusing the interdisciplinary approach – which was done by some surveyors – most of them focused on the technical challenges, which are not understood and honored by the customer at all.

LA: ENTITIES, RELATIONS, PROCEDURES, INSTITUTIONS

Up to now laws and rules are often very much driven by single agencies instead of being driven by customers demand.

It is state of the art to improve, data quality, data models, data exchange. However who benefits from all that? Is it really the customer or is it still very much an improved productivity within each institution?

Rules (laws) are still very much oriented to the task of a single agency (Law on Land Registration, Law on Cadastre, Law on general planning). Is there a common approach to deal with all these land and property related issues. In some countries there are approaches of coordination on governmental level (www.meh.hu).
LA AS INTER-INSTITUTIONAL CHALLENGE

Institutions involved in LA use tools for managing all the information as many others do. Comparing the ongoing changes within a quite technical tool: “Spatial Information Management” and the impact to organizations in general shows the challenges for all the land and property related agencies. Such a comparison reflects the changes best and could show the way we have to go with LA in general. This covers issues like sharing data and the afford to maintain data which has an impact on inter-agency cooperation; also providing data for the customers “online” has an impact on the traditional way of running branch offices as point of access.

One of the logical next steps will be “single point” of access to data as well as for applications. The customers demand is not like “I want to subdivide my parcel”. It is much more “I have to subdivide my parcel in order to sell it or to get a building permission according to general planning rules, of which I need data. Up to now we let the customer link data of different sources – in future the different dataproviders will have to offer that service compatibility of data for merging, linking and overlaying.

1.1 Interactivity and Integration

Isolated systems: The development within the GI-business started with isolated systems. GIS was used as tool for producing maps, which were distributed in paper form. This phase can be compared with independently acting agencies.

Interactivity: Later on users were directly connected to the database and got immediate answers. This service could be compared with improved data.

Integration: Connecting the internet and mobile communication technology with geographic information seems to be the next logical step to “mobile spatial information management” as a product. This technical solution however needs a close cooperation of all agencies acting in the background to serve the customer.

Coming back to the current situation within LA: The following figure shows the legal situation on LA in Germany (grey) and in Austria (colored). In Austria the cooperation between Land Registry and Cadastre seems to be better tuned than in Germany. For sure—the Austrian federal administration made a good decision 25 years ago by linking data of Cadastre and Land Registry. In Germany the cooperation between one Federal Agency (Grundbuch) and 16 Cadastre Agencies on county level is much harder to achieve than it is in Austria between two Federal Agencies.

In some Eastern European countries (CZ, SK, H, MD and others) it was decided to merge Cadastre and Land Registry similar like in the Netherlands (or in Sweden). That decision improves cooperation between property rights and description of real property (Cadastre). LA and Land Management however demands much more to be a tool for Land use planning, general planning, urban and rural development including environmental and agricultural monitoring and so on.
1.2 Real Property related data changing over time

We all are not aware about the fast changing society. Changes over time are in general not obvious to us. But remember old pictures of our landscape and you will see the ongoing environmental changes. There is an increasing demand to have evidence of changes over time. This is not only interesting for cases of restitution and environmental pollution as seen in many Eastern European countries.

1.3 Real Property related data with a changing rural focus

The restitution and privatization process had to break down cooperatives to establish private farming, which is however from the economic point of view much more a “gardening” than a “farming” when we look at the average farm size in Bulgaria and Romania of less than 4 ha.

2 FIG: The Bathurst-Declaration, FIG Publication No. 22/1999

LA AS TOOL TO CONTRIBUTE TO CHANGING SOCIETY

Figure 4: LA in Germany (grey) and in Austria (in colour)
The shift of population based on changing economic situation is obvious. In Western Europe we had more than 50 years of time to scope with these changes. However in Eastern Europe these changes are much faster and are pressed into a period of about 10 years starting with 1989.

The overall trend of people to move into urban settlements can be shown best on the example of Bulgaria, where only an economic crisis in 1996 forced young people to go back to countryside\(^3\). Nowadays farmers in Bulgaria have an average age of 60 years\(^4\).

### 1.4 Real Property related data with a changing urban focus

The economic development needs more data for managing the urban environment. Is Cadastre and Land Registry really facing all these ongoing changes?

There is an increasing demand to deal with data in the 3rd dimension in urban environment:

- Information about apartments is still rarely, even when an apartment has a higher value than a parcel in the field. Objects under earth like Metrolines or objects over railways stations etc are of high value and are linked with a lot of rights which can hardly be linked with an cadastral object.

There is an increasing demand to manage financial information:

- Nowadays in the Netherlands more mortgages than transfers of ownership are registered per year.
- Also in Sweden we can assume from the user statistics that the Land Data Bank must be driven by an economic approach: 60% of users access is done by banks.

Comparing user categories in Austria with those in Sweden shows that in Austria the legal business (31%) and the banks are the main customers. In Sweden Banks (65%) and Municipalities (18%) are the main customers.

---


### 1.5 LA with a changing focus

Nowadays LA must face the ongoing changes of customers and their expectations in order to scope with the economic challenges. This can be shown on two facts:

1. The main purpose of Cadastre was once taxation of rural properties. Nowadays these regions are heavily subsidized in the whole EC.

2. The main customer categories were changing dramatically in Sweden between 1978 and 2000.

![Figure 8: Changing customers categories in Sweden 1978-2000](image)

**CONCLUSION**

Lets face the challenges and carefully listen to the changing demands. These demands can only be fulfilled by an inter-disciplinary approach of cooperation.