

Security of Land Property

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ABSTRACT

Land property registration systems are one of the most sensible instruments for a country. Present digital cadastral systems have to be developed towards "metadata-cadastres" as most of the prevailing systems are no longer sufficient in a surrounding that is created by an increasing number of regulations and growing complexity.

It depends on a few key issues which grade of security a system guarantees for the owner and more for the whole society. Future systems need to be more independent of social and political circumstances. It is one of the main tasks of geodetic surveyors to develop and keep up secure systems and to find solutions for the future demands.

ZUSAMMENFASSUNG

Systeme zur Registrierung von Grundeigentum sind für jedes Land von grundlegender Bedeutung und reagieren mit hoher Sensibilität auf Änderungen von aussen. Gegenwärtig ist in vielen Ländern ein Trend vom digitalen Kataster in Richtung Metadaten-Kataster zu erkennen, da die bisher praktizierten Lösungen für die wachsende Vielfalt an Anwendungen nicht mehr ausreichend ist. Die Zunahme an gesetzlichen Regelungen und deren Komplexität verlangt nach einer neuen Art der Dokumentation bzw. Registrierung von Rechten und Pflichten an Grund und Boden.

Die Sicherheit der Eigentumsregistrierung für den einzelnen Grundeigentümer als auch für die Gesellschaft hängt von einigen wenigen Faktoren ab. Zukünftige Eigentumssicherungssysteme müssen weitgehend unabhängig vom sozialen und politischen Umfeld sein. Es ist eine der Hauptaufgaben des Vermessungsberufes solche Systeme zu entwickeln und aufrechtzuerhalten und Lösungen für zukünftige Anforderungen zu finden.

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1. PRESENT SITUATION

The prevailing property registration systems have been a result of a long-term development started on different purposes. In many countries the registration of the area of property units for taxation purposes have been the main interest of governments or sovereigns (therefore "cadastre"). Land registration was an instrument for income and not very often an instrument to guarantee the security of land tenure or ownership.

Major changes in the economic systems as well as demands from the market, increasing values for land all over the world, the necessity of sustainable use of land resources in rural as well as in urban areas can be considered to be responsible for completely different applications of property registration systems.

Due to these important and fundamental impacts on the owners of land themselves and on their economic security it has to be investigated if existing systems are secure and keep stable in any situation influenced by political or economic matters.

2. SYSTEMS

Land registration systems containing all information about the owners and the property can be classified by the way they have been established and how they are maintained.

2.1 Public Registration

Registration and maintenance are exclusively run by public institutions. There is no private sector working on property surveying and the entire system of registration is maintained by public offices. Public sector activities are in most cases very closely linked to governments and it can easily be recognized that such systems are exposed to political influence to a high degree.

It starts with the legislation on which registration is based and leads to steering influence by distributing the public funds and nomination of officers into key positions.

Citizens are often prohibited to an impartial treatment by the public institutions, as the administrative institutions are working within one and the same system and auditing procedures cannot be effective as they are bound to regulations out of this network which has no impact on changing the network.

2.2 Private - Public Registration

Registration and maintenance are realized in co-operation between public institutions and private sector players. Mostly the property subdivision documents are carried out by private

companies who have been licensed to take over tasks in charge of public institutions. Although they are bound to the same regulations and laws a higher rate of independency can be stated and objectivity is checked by the public institutions as an uninvolved instance. Weakness of the system can be avoided by a joint self controlling quality assurance system which guarantees on the one hand legal security of the operations by the individually acting private players and which controls the correct transfer of the results into the public registers. If the private surveyors are direct contractors to the land owners and not responsible to the public institutions by acting as contractors of them the independency can be estimated up to a high rate.

There is still a remaining interdependence between the public sector and the (temporary) government in these models but it is reduced to a minimum.

2.3 Private Registration

Private registration systems can be found only in a few countries in the world. Besides systems without regulated registration and relying on exercising the rights of ownership by the assurance of a deed there are existing systems which are up-dated and maintained by private institutions which means that subdivision as well as registration is carried out by private companies within a framework of legislation and regulations. The part of the public sector is reduced to co-ordination and sometimes to distribution of data. The independence of political situation is sometimes replaced by a strong influence of the interests by economical competition and economic demands.

As far as there is a working control mechanism run by an independent private or public authority the system cannot easily be influenced by external issues. The weakness is to find in the sensibility against economic impacts.

3. PROTECTION OF INDIVIDUAL OWNERS

Despite of the different kinds of maintaining property registration systems by public or private institutions or in co-operation of both, the contents of the registration systems must be available to a wide range of users.

Maps, data about land and property and restrictions and rights are the main contents of databases evaluated from the registration systems.

It is of major interest of every property owner that data concerning his ownership are stored in a legal, technical and from incoming influences secure way.

It is not the aim of this reflection to focus on technical issues of security which are in fact no obstacle on the way.

The main focus lies in the question how to keep the systems secure if legal or political circumstances change and jeopardize the security of property by influencing procedures or regulations for this purpose.

Other situations for misuse or destruction of data might be in case of war, claims for restitution of land, expropriation for different reasons e.a.

Past has shown that in most cases the registers as a whole have been abolished to get to a new starting point without remnants to be considered but it caused a multiple disaster to all the former owners in their personal interests.

Not even the rights or security of one single owner should be affected by external influence in a secure system.

4. SECURE SYSTEMS

To ensure an independent secure system of ownership registration there are several items to be fulfilled:

4.1 Dissemination of Data

The more data are published and spread among a great number of users or applicants the more difficult it is to make them unknown or invisible. The recent development from initially plain registration data towards multi purpose cadastre respectively towards geographic information systems cover a wide range of users and professions and help to create a number of new products containing the land property information.

4.2 Access to Data

Access to public data on land must be as open as possible. New information highways and instruments to spread the information like the web opened possibilities to everyone to obtain data and to register them at any other place.

Considering data protection regulations in order to protect individual rights there is no reason for keeping the data away from dissemination in the web. Every new application on property data by external users raises the security of the individual registration and works like a self-controlling registration system which makes misuse rather difficult.

Spreading data and opening the access to property data means to transport data possibly out of an area of national interests and creates means of control out of the activity range of an interest group which might try to gain influence.

4.3 Variety of Applications

The models for a multi purpose cadastre including geographical information systems guarantee a wide number of involved institutions with various interests. Individual interests can be protected by operating with anonymized data. In most cases the name of the owner is not used for further processing, nearly all applications for geographic information need the information on personal issues and personal facts but need no information on name at all.

On the other hand the owner is able at any time to identify him/herself for proving his property.

A great variety of applications demands information about applicants and contents, called metadata. Metadatabases posted on the web are an additional umbrella security system to preserve information on individual property rights. Every additional application of data or additional layer of information is an additional obstacle for weakening the security.

4.4 Supervisory Boards

Although a system based on Private-Public Partnership and run in co-operation by both sectors is supervising itself to a wide extent it is recommended to establish supervisory boards on national level to ensure impartial proceedings at any time. The members should be nominated from different interest groups. Representatives of sectors using the property registration data like banks, assurances as well as consumer protection interest groups or property owner interest groups could act as an institution of control. Experts from international professional associations like UNO, FIG e.a. could help to ensure high independency from national interest groups.

5. CONCLUSIONS

Either analogue data or digital data or products can be destroyed easily and are sensible towards manipulation from any outside interest group. Plain data are going to be replaced in most property registration systems by information or value added data. These multi-purpose information is nearly restricted from being erased or manipulated. Regarding the world-wide growing value of land and increasing importance for a high security of land property to prevent clashes over land tenure and land rights surveyors are responsible to find systems which are secure in any situation and in all countries in the world.

BIOGRAPHICAL NOTES

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Born in 1956, baccalaureat in 1974 in Reutte/Tyrol, Diploma of Commercial College, Innsbruck/Austria July 1975. Study of Geodesy at University, Innsbruck 1975 - 1977 and Vienna Institute of Technology, Vienna/Austria 1977 - 1980. Graduated Dipl.Ing. (MSc) in Geodesy in 1980.

Professional career started in 1981 in the Austrian Federal Office for Metrology and Surveying (BEV), head of a cadastre office from 1983-1997, since 1998 consultant for GI affairs of the EC and for international organizations in the Headquarters of BEV.

Activities in professional bodies:

- Austrian Association for Surveying and Geoinformation (ÖVG), *Member* of the Executive Board since 1998

- Austrian Umbrella Organization for Geographic Information (AGEO), *Foundation member* of the organization, *Secretary-General* of the organization since foundation 1998, re-elected in 2001
- German Association for Surveying (DVW), *Member*
- Comité de Liaison des Géomètres Européens - European Council of Geodetic Surveyors (CLGE), *Secretary General* of the organization since 1998, re-elected in 2001
- International Federation of Surveyors (FIG)
- *Secretary* of Commission 3 (Landinformation) from 1990-1994
- Austrian *Delegate* to Commission 7 (Cadastre) since 1994, *Member* of Working group „Cadastre 2014“ in Commission 7
- *Member* of Task Force on „Under-represented Groups“ in Commission 2
- EuroGeographics, *Member* of project team for establishment of an European Road Database, *Member* of Working Group on GI dissemination in the E-ESDI project
- Working-Group for women’s equal rights in the Austrian Ministry of Economics and Labour, *Member* since 1984.