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Ordnance Survey  
Romsey Road  
SOUTHAMPTON  
SO16 4GU  
United Kingdom

## **Future Perspectives on Cadastre**

B Kjellson  
Director of Planning  
National Land Survey of Sweden  
Chairman, UN ECE Working Party on Land Administration

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B Kjellson  
Director of Planning  
National Land Survey of Sweden  
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## Abstract

When trying to see around the corner and look into the future, it is quite obvious that national mapping, the cadastre and other aspects of land administration will share much in the way of developments in the forthcoming years, and definitely more than in the past. One reason for this is of course the fact that many national mapping organisations also are responsible for the cadastre, but there are other trends that contribute to this as well.

These developments are certain to change the roles of the organisations involved and the environment in which they operate. Although it is hard to predict the details and speed of this development, I believe it is possible to identify the direction.

## Introduction

There are some trends that are quite obvious today, some of them general and some more specific to the areas of geographic information and land administration. Examples of such trends are:

- The cadastre being part of land administration together with land registration; users interested in “property or land information”.
- Market driven and increased interest in information means that there will be less focus on traditional activities such as mapping, surveying and registration.
- More non-professional usage of services, increase in public access to data through Internet services, 24-7 services, etc. must be dealt with.
- Demands for new kinds of information, e.g. about the environment.
- The need to merge provision of information from cadastral and topographic mapping.
- Integration of data maintenance in order to make better use of technology, organisational resources and to cut costs.
- More global thinking, due to international demands for access to information which will ultimately lead to more harmonisation.
- International information services rather than national agencies.
- Government’s role keeping the information infrastructure and the legislative framework, while others take a larger role in maintenance of data.

By attempting to highlight these developments, and outlining what this will mean for the future of land administration and mapping organisations, we can hopefully get a better picture of what our future will look like.

## Information and e-business are the drivers

The end of the last century meant rather dramatic technological changes. Our ways of working, of communicating internally and with our customers were often reversed. The citizens' hunger – and the possibilities to actually access – information through the Internet has shifted the balance in many ways. For many operations, private or public, the knowledge that many customers now have means that they require much more from the different kinds of services they make use of.

If we look at the world of geographic information and land administration, this increased interest in information means that there will be less focus on traditional activities such as mapping, surveying and registration. It is the information that these “production operations” generate that is of interest and that will be in focus. How the information is produced will be of lesser interest to the customers, as long as the demands for quality, accuracy, service levels, etc. are met. A central part in this will of course be the need to access information through Internet services, 24-7. It is essential to realise that this is not only a political mantra but also a true customer demand that must be dealt with.

This development is already taking place, and it is clearly market driven rather than political. The interest in identifying new applications and uses, e.g. mobile services for the 3G systems, also means that we will see much more in the way of usage of services in entirely new areas. This means that we will all have an increase in customers and partners that come from what we perceive as “non-professionals”, i.e. people that do not speak “our” language; where GIS is more likely to be the name of a clothes brand than anything else.

This market driven and increased interest in information means that there will be less focus on traditional activities such as mapping, surveying and registration. We will have to learn how to operate in an environment that is becoming more and more like that of an information provider rather than that of a national mapping or land administration organisation.

## New applications and users

As mentioned, we will see a number of new applications and users. The technical possibilities to create – and need to identify revenue generating – applications for the 3G networks is well known. But there are also other developments connected to other areas of society. We all know about Spatial Data Infrastructure developments and the Inspire initiative in Europe, but perhaps fewer know about such things as demands connected to the capital markets for valuation of securities and loans.

Such developments will not only bring the new applications and users, but also the need to merge the provision of information from at least the cadastre and topographic mapping. It is however likely that others parts of land administration, e.g. land registration and valuation, will need to become parts of more integrated information services.

But the demands do not stop there. Inspire is a good indication of how we must start thinking about demands for new kinds of information, in this case about the environment. A recent study completed by the Association of Registrars (Colegio de Registradores) of Spain on behalf of the European Environment Agency shows how well suited the land register organisations are to become centres of environmental information.

## Going global

To an increasing extent we are becoming international citizens and organisations rather than nationals. It is not only holidays and fun that make us go abroad; education and business relations cross borders more and more. From land administration perspective it is easy to see that – no matter that property law is not on the agenda of the EU – we will see more of European considerations taken. The wish to harmonise the financial market, e.g. for housing mortgages, makes it necessary to look at things such as provision of information, valuation standards, etc. And there are other developments of this kind that also concerns geographic information.

Such international demand for access to information forces us to think more globally. In January 2002 the EULIS project, partly funded by the European Commission's e-content programme, was launched. This initiative, which aims at establishing one single point of access to land information from all European jurisdictions, is now one among several EU initiatives which will ultimately lead to a more harmonised European environment, all for the good of the European citizen and business.

These developments, which I am certain will appear in other parts of the world as well, will lead to the emergence of international information services rather than national agencies producing registers or maps.

## Role of government

One important aspect of the present development is what role government should, can or wants to play. A general trend towards less tax funding for non-core activities has been obvious for many years, and there is no evidence pointing to any change. The direction is clear – less tax money will be spent on land administration and geographic information. But the effect of this is different in different countries; in some places the government steps back leaving more room for private players and in others the government stays active but generates revenue through fees instead.

This illustrates the different roles that governments see in the future. The minimalist role in most cases seems to be to keep the information infrastructure and the legislative framework, while others – mainly in the private sector – take a larger role in maintenance of data. In some jurisdictions the role might however be even smaller, the government only doing what others are not doing or only making things that are in some way "cheaper" than what others are doing and then only for the public sector.

On the other hand, some governments see the possibilities of maintaining an active involvement despite lesser government spending. By charging fees for the services performed that correspond to the benefits gained by the customers, enough funds for active development to the benefit of society as a whole can be generated. Thus, it is possible to provide services to the whole society and across the whole jurisdiction, at terms that are not that different from what they would have been if government funding would still be in place. The fees paid actually go back into the infrastructure, and to the further improvement of services.

To what extent the infrastructure approach has been adopted still varies between jurisdictions, but it is quite obvious that it is growing.

## Conclusion

The world of cadastre, land administration and mapping is changing. And it will continue to change, at an increasing pace. We will have to find ways to make better use of technology, organisational resources and to cut costs in order to meet the demands from customers, citizens, governments and the international community. This will, I believe, lead to a situation where it is no longer taken for granted that there will be national land administration or mapping agencies. In many cases it will be obvious that it is more effective to have one organisation that operates across borders than keeping a national operation.

The big question is – who will be the first to do this?