

# Reorganising Land Registration in Denmark

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**Key words:** Cadastre; Digital cadastre; e-Governance; Legislation

## SUMMARY

Technological development, including the use of digital signatures, has improved the prospects of e-Government development in key areas. National land registries are central to society, regardless of the level or form they have at any given moment.

Land registration in Denmark is divided into three separate areas - the Cadastre, the Land Register and the common municipal property data system. These are based, respectively, in the Ministry of the Environment, The Ministry of Justice and The Ministry of Welfare. In 2008, the transmission of cadastral cases from licensed land surveyors to The National Survey and Cadastre will become paperless through the introduction of new systems. Land registration will also become paperless over the course of 2008.

These developments are part of a larger reform of judicial districts in Denmark that will also sponsor the centralisation of land registration. Modernisation of the Land Register and Cadastre as well as their interaction with the Civil Registration System of individuals will reduce duplicate registration of information by several public institutions. These developments are being coordinated with the relevant public sector stakeholders, including mortgage credit institutions, banks, licensed land surveyors and lawyers.

A general review of these developments will be given, along with an update on the progress of the reforms.

## ZUSAMMENFASSUNG

Der technische Fortschritt, hierbei die Anwendung der digitalen Unterschrift, hat die Entwicklungsmöglichkeiten der elektronischen Verwaltung in zentralen Bereichen verbessert. Nationale Eigentumsregister sind grundlegende Elemente der Gesellschaft, ungeachtet ihres momentanen Standards oder ihrer augenblicklichen Form.

Eigentumsregistrierung ist in Dänemark in drei verschiedene Bereiche aufgeteilt – das Katasterwesen, das Grundbuch und das gemeindliche Eigentumsdatenverarbeitungssystem mit der jeweiligen Zuständigkeit des Umwelt-, des Justiz- und des Wohlfahrtsministeriums. Im Jahr 2008 werden voraussichtlich neue Methoden in Gebrauch genommen, die eine papierlose katastriere Sachbearbeitung zwischen privat praktizierenden Vermessungsingenieuren und die zentrale Katasterverwaltung ermöglichen. Gleichmaßen wird auch die Grundbucheintragung im Laufe 2008 papierlosen werden.

Diese Entwicklung ist Teil einer größeren Gerichtskreisreform bei welcher unter anderem, das Grundbuch und Katasterwesen zentralisiert und modernisiert wird. Außerdem werden Arbeitsabläufe zwischen Eigentumsregistern und Personenregistern effizienter gestaltet, so dass Doppelregistrierungen und Doppelarbeit minimiert werden. Die neuen Systeme werden in enger Zusammenarbeit mit fachkundigen Anwendern, Bausparinstituten, Banken, Vermessungsingenieuren und Anwälten entwickelt.

Es wird eine Übersicht zu dieser Entwicklung und eine Aktualisierung zu dem Verlauf der Reform gegeben werden.

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## 1. INTRODUCTION

In 2001 the Danish government initiated cooperation with Local Government Denmark (LGDK) and the former Association of County Councils in Denmark (now Danish Regions) "Project Digital Management" to promote the reorganisation to digital management between authorities in the public sector. The project is being managed by a board of directors composed of the permanent secretaries from the Ministry of Economic and Business Affairs and a number of other ministries as well as the director generals from Local Government Denmark (LGDK) and the Association of County Councils in Denmark and others. The work of the project is being carried out by the Digital Taskforce, which employs approximately 20 people, primarily working with organisational and legal issues in connection with the introduction of digital management. The Digital Taskforce initiated inter-disciplinary cooperation in key areas for the reorganisation process.

To ensure common focus on digitalisation as a part of the overall public-sector modernisation policy, the parties behind the project decided to change the name from Project Digital Management to the Steering Committee for Inter Public Authority Cooperation (Styregruppen for tværoffentlige samarbejder) in 2005, and in 2008 they extended the financial agreement for the Digital Taskforce up to and including 2010.

The modernisation of land registration in Denmark, which is described in the following, should be seen as point by point digitalisation efforts and important parts in the inter-disciplinary cooperation in order to promote digital management between public authorities mutually and with relevant private enterprises and the public.

Land registration is one of the key areas in any society. The original objective of land registration was to *ensure* ownership of land and other private rights in real property and to *establish* the foundation for taxation of real property. Later, land registration became a necessary foundation for large parts of the public administration, which needs updated information on ownership as a basis for the administration of current legislation. In this connection, the maps showing the location of the registered real properties became increasingly important, and interest in using geographical information in the administration is still increasing.

## 2. LAND REGISTRATION IN DENMARK

Real property in Denmark is registered in the central *Cadastré* in the Danish National Survey and Cadastre. The individual plots are registered with each their own cadastral number in the *cadastral register*, also containing information on *area sizes*, *registration as a cadastral property* and other *statutory registrations*. The location of the individual cadastral numbers

appears on the *cadastral map*, which also contains the basic registration of boundaries for *municipalities, regions and parishes*.

The *Land Register* is based on land registration in the Cadastre and contains:

- *standard data* (copied data from the cadastral register, addresses and valuation data),
- *registered titles, mortgages and easements etc.*

The *common municipal property data system (ESR)* is also based on land registration in the Cadastre and contains

- *standard data* (copied data from the cadastral register and from the Land Register with regard to owner-occupied flats),
- *information on addresses, property values, land type codes and land use codes, taxes, duties and fees etc.*

The property registers were reorganised to IT systems at different times by different authorities in order to carry out different tasks, cf. table below.

<b>Register</b>	<b>Reorganised in the period</b>	<b>Primary key (identification of cadastral no.)</b>	<b>Secondary identification</b>
Cadastral register	1984-1986 (new 1991)	Cadastral district code and cadastral no. or municipality, cadastral district name and cadastral no.	Property address
Cadastral map	1990-1997	- same -	Address
The Land Register	1990-2000	Judicial district number, abbreviated cadastral district and cadastral no.	Address
ESR	1970-1972 (new 1986)	Property number or municipality, abbreviated cadastral district and cadastral no.	Address

The National Survey and Cadastre operates and manages the central Cadastre for Denmark, apart from the City of Copenhagen and the City of Frederiksberg, which each manage their own cadastre. At the moment there are negotiations on transferring the cadastral service in the two municipalities to the National Survey and Cadastre, which will then be the cadastral authority for all of Denmark.

The central Land Register was previously managed decentrally in the individual judicial districts. ESR is managed decentrally in the individual municipalities, as well as in a central register.

### 3. LEGISLATION

The Subdivision Act ensures updates of the Cadastre in line with agreements regarding boundary changes and changes in the administrative boundaries above-mentioned.

The Land Registration Act regulates what documents can be registered, and the Land Register is updated in line with the registration in the Cadastre of boundary changes.

The Subdivision Act, the Land Registration Act and the Valuation Act are closely coordinated and based on the property concept in the Subdivision Act, under which a cadastral property comprises one or more cadastral numbers if they together comprise a property according to the registration in the Cadastre. Two or more cadastral properties may be mortgaged together. This also applies in a valuation property, if the properties belong to the same owner.

Real property can, however, also be an *owner-occupied flat* or a *building on rented land*. These types of property do not exist in the Cadastre, but only in the Land Register and in the ESR. They result from the registration in the Land Register of the registered subdivision of a property or the registered lease on the area.

#### **4. CHANGE OF BOUNDARIES OF CADASTRAL PROPERTIES**

Boundary changes by subdivision or otherwise are registered in the Cadastre on the basis of documents procured and submitted by private licensed land surveyors. The cadastral authorities inform the Land registration authority and the municipal council on the registration in the Cadastre with a view to updating the Land Register and the ESR.

This means that a buyer of a plot, which is to be subdivided as a building site or transferred to a buyer's property, cannot have the title deed to the plot registered permanently before the Land Registry have received a notice from the National Survey and Cadastre that the new building site has been registered in the Cadastre as an independent cadastral property, or the area bought has been released from liability to mortgages and placed together with the buyer's property.

#### **5. DEVELOPMENT**

On the basis of technological developments and the government's goal to establish digital public management, extensive modernisation has been initiated of the Cadastre as well as the Land Register. In both cases this concerns introduction of requirements for digital documents, where the submitter or the notifier must use a digital signature, and where digital archives also are established.

##### *The Land Registration Act and the Land Register*

The amendment to the Land Registration Act in 2006 introduced a legal basis for implementing digital registration. The amendment to the Land Registration Act was part of an extensive police and court reform, which was implemented at the same time as an amendment to the Administration of Justice Act and other Acts. Effective from 1 January 2007, 82 judicial districts were converted into 25 new judicial districts, and a special Land Registry Court was established, which was to manage registration in the Land Register for Denmark in the future. Land registration has gradually been transferred to the Land Registry Court. Responsibility for registration is still placed with a judge (President of the Land Registry

Court), and therefore this is still a judicial decision. Registration in the Land Register continues to be based on the current well-tested registration scheme. A new e-registration system is currently being developed and is being organised in a public-private collaboration model, where operation of the new central system is to be managed by CSC, and where standardised interfaces are to be established directly for the central system in cooperation with, for example, mortgage credit institutions and banks. The new land registration system, which is described in more detail below, is expected to go into operation in November 2008.

An amendment to the Land Registration Act also introduced new provisions, under which the Minister for Justice may lay down regulations regarding specified rights to real property which no longer have to be registered. This includes rights, effective without registration against anyone, and which can be seen in another, easily accessible public register. A great many public law easements, for example, local plans which are binding on the land owner from the time the plan is published, cannot be registered in the new system. Instead the information must be presented to the public in a more appropriate manner via an internet portal where information can also be compared and presented on digital maps.

At the same time as the amendment to the Land Registration Act, there was also an amendment to the Danish Planning Act, where provisions were introduced that local plans etc. after 15 September 2006 must be registered in a national register called "PlansystemDK". Equivalent amendments can be expected for other statutory public law easements.

With the amendment to the Land Registration Act, provisions were also introduced under which localization must take place on the basis of the cadastral map of new as well as already registered easements in connection with subdivision etc. Since 1927 there have been regulations in the Land Registration Act that, in connection with subdivision and transfer of an area to another property, private licensed land surveyors must prepare a certificate of easements as a basis for the judge's allocation of registered easements. When the new e-registration system is implemented, the land surveyor's certificate of easements must also contain digital information on the geographical location of easements.

#### *The Subdivision Act and the Cadastre*

The Subdivision Act was modernised and made technology neutral with amendments in 1991. This took place at the same time as the decision to establish national digital cadastre maps. The National Survey and Cadastre then laid down regulations on form and formats for documents in cadastral cases, which private licensed land surveyors submit to the National Survey and Cadastre.

The National Survey and Cadastre has initiated digitalisation of the cadastral files and archives, including measurement documentation which exists in the analogue cadastral cases and which belong to the digital cadastral map. By the end of 2008, measurement documentation dating back to 1986 will be available on the internet for private licensed land surveyors and internally in the National Survey and Cadastre. Furthermore, the National Survey and Cadastre has digitalised all the original historical cadastral maps, which will also

be available on the internet. The historical maps are used by surveyors when clearing up easement issues, for example.

In parallel with the production of digital cadastral maps, and the associated possibilities for using GIS, as well as the spread of the internet, the National Survey and Cadastre saw increasing interest from other authorities to use the Cadastre as a basis for the administration of legislation on area regulation.

Historically agricultural land with farming obligation and protected forest was registered in the Cadastre. The National Survey and Cadastre offered to register other statutory easements (restrictions) in the Cadastre, provided that the regulations were important for the formation of cadastral property, and that it was a national registration that would be kept updated by the relevant authority, which would also finance registration in the Cadastre. After this scheme, protected forest registration in the Cadastre was updated and new aspects on beach protection, preservation of dunes, soil pollution and windfall were registered in the Cadastre.

The need to replace outdated technology and the government's policy on improving efficiency by modernising the process of administration by digitalisation means that new IT systems have been developed to support the cadastral processes. The new systems will be put into use in 2008, cf. below.

#### *Other state and municipal property registers as well as disclosure of property data*

The State Valuation Register (SVUR) was established in connection with the common municipal property data system (ESR). An analysis of the possibilities for modernising the municipal property registers has not yet been initiated.

On the basis of the municipal registers, the central government established a public information server "Offentlig Informationsserver" (OIS) ([www.ois.dk](http://www.ois.dk)) in 2000 where public property data is made available as copied data, and may be disclosed in accordance with current regulations on personal data protection and marketing. Therefore cadastral information as well as Land Register information is disclosed via the OIS. In step with modernisation of the Cadastre and the Land registration system, it is expected that the OIS, via the service-oriented architecture (SOA) will be able to present information directly from the Cadastre and the Land Register.

## **6. E-REGISTRATION IN THE LAND REGISTER (E-TL)**

The terms *centralisation*, *digitalisation* and *automation* characterise the new e-registration system currently being developed.

*Centralisation* entails, as mentioned, that the former 82 Land registration offices are gathered in the Land Registry Court. When the new e-registration system comes online, the number of employees working with land registration will fall by 2/3 in the long term. Approximately 120 employees are expected to manage land registration, which apart from registration of documents concerning *real property* also includes registration of documents concerning *cars*,

*co-operative buildings, company mortgages, personal mortgages, marriage contracts, wills and legal capacity.*

The Land Register comprises approximately 2.2 mill. real properties, including owner-occupied flats. In 2005, 3.6 mill. documents concerning real property were registered. Approximately DKK 6 bn. was paid in registration fees and approximately DKK 325 mill. in inquiry fees. Approximately 80 mill. A4 pages are kept in the registration case files, which contain copies of the registered documents.

Digitalisation means scanning the approximately 80 mill. documents kept in the files in the 82 land registration offices. Scanning is currently underway and is almost finished. When the new e-registration system comes online, all documents required registered must be submitted as digital documents with a digital signature. In order for this to happen, a ***power-of-attorney scheme*** was introduced to enable persons who are not able to use a digital signature to have the registration done.

According to the power-of-attorney scheme, persons or enterprises without a digital signature can give other persons or enterprises with a digital signature authorisation to carry out registration. The power of attorney must be prepared on a standard form, which is submitted electronically or in print to the Land Registry Court. Printed powers of attorney concerning title deeds and mortgages must be witnessed and contain civil registration numbers and period of validity. The Land Registry Court reviews the authorisation, so the document, which the holder of the power of attorney later notifies for registration, can be registered just as quickly as a document with the owners digital signature.

The power-of-attorney scheme is supplemented with ***a notification scheme***, under which specially authorised notifiers, without having sent a power of attorney to the Land Registry Court, can notify digital documents for registration by using their own digital signatures. The notification scheme only applies in connection with registration of mortgages, where the need for real time registration is greatest. Authorised notifiers must themselves guarantee that there is a power of attorney, and they are liable to pay compensation to the person suffering losses according to the general regulations.

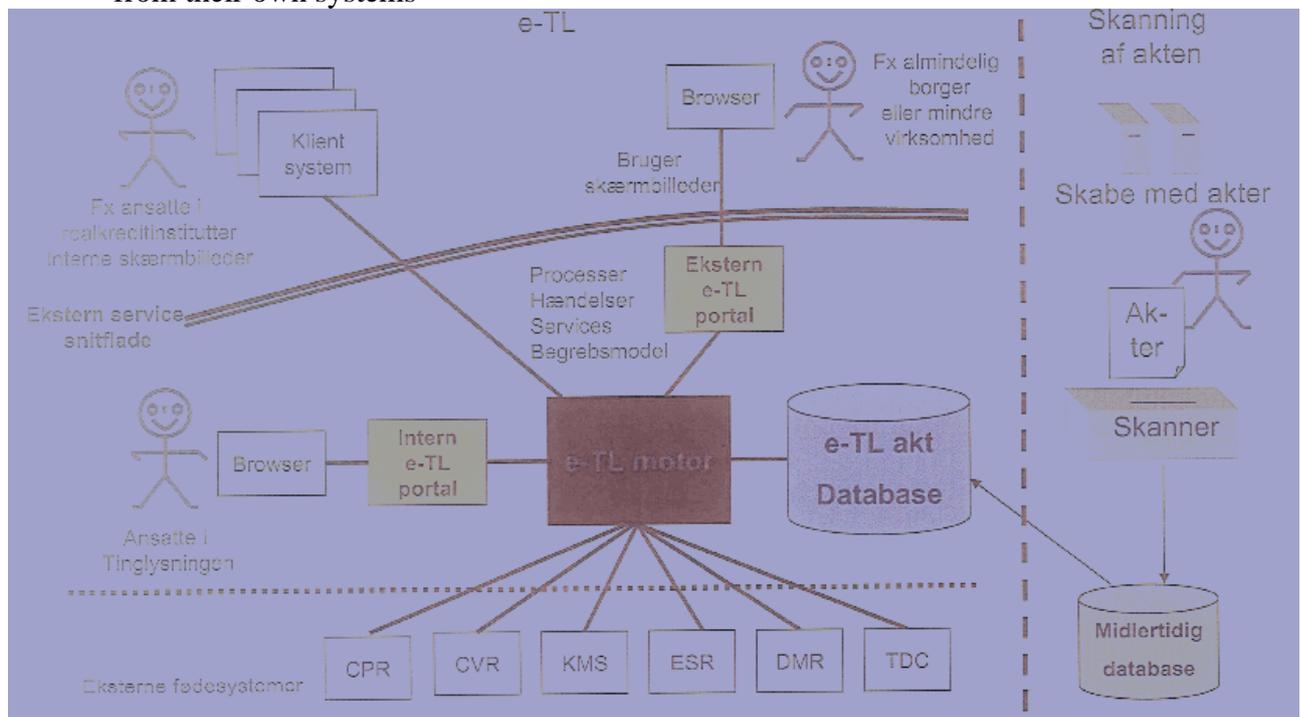
Most documents notified for registration relate to mortgages. This is due to the Danish mortgage credit system. Mortgage credit loans are the cheapest source of finance, and mortgage credit loans are taken out to fund most real property purchases. It is possible to take out a mortgage credit loan with fixed interest for a period of 30 years for up to 80 per cent of the value of the property, and the borrower can of benefit from converting mortgage credit loans in step with large interest rate changes on the regular credit market.

#### *Automation*

A degree of automation of 70 per cent is expected in the new e-registration system. The remaining cases will have to be dealt with manually on the basis of digitally reported documents.

The basic architecture of the new digital registration system consists of the following components:

- *registration case files*, containing all the data in the Land Register, including the scanned documents.
- *Registration motor*, carrying out the actual registration
- *portal for internal use* for the registration employees
- *portal for external use* enabling anyone else to notify documents themselves, and
- *service interfaces* enabling external users to access the registration motor directly from their own systems



**Figure 1:** Basic e-registration structure with scanning

**CPR:** *The Civil Registration System contains information on all persons, who have lived in Denmark since 2 April 1968 and have been registered in a Danish municipality. The Civil Registration System contains the following information on the individual person: CPR no. with 10 digits, name, address, place of birth registration, citizenship, information regarding the Danish National Evangelical Lutheran Church, kinship, marital status and perhaps security information.*

Tests of the buyer's right to his real property, which today is carried out manually, will in the new system take place mechanically and automatically by a comparison of information in the digital signature with information on the buyer's civil registration number or business registration number in the in the Civil Registration System or the Central Business Register.

**CVR:** *The Central Business Register contains information on Danish enterprises. Enterprises with the duty to report information (for example value-added tax or other taxes) to a public authority must be registered in the Central Business Register at the Danish Commerce and*

*Companies Agency. The individual enterprise has a Central Business Register (CVR) number with eight digits, and the Central Business Register contains information on the enterprise, including forms the enterprise can use for reports to public authorities.*

**KMS:** *The central cadastre in the National Survey and Cadastre contains the basic registration of Denmark's real properties, cf. above.*

Cadastral changes are not registered, but noted in the Land Register on the basis of reports from the National Survey and Cadastre. The new e-registration system is not based on an automatic or mechanical update of the Land Register with regard to cadastral changes, but the cadastre's information will be included in the testing of whether a document concerning conveyance or mortgage of a real property defines the property as it is registered in the Cadastre, as a mechanical comparison with information in the Cadastre will take place. Work on analysing the possibilities for establishing a direct and more close interplay between the Cadastre and the Land Register so storage of copied data can be avoided, has not yet been initiated.

**ESR:** *The common municipal property data system is also mentioned above.*

In recent years, the address of the property has become increasingly significant as an entrance (a key) to property registers. Addresses with associated street codes and street names are determined by the municipal council, although in cooperation with the central government in cases regarding motorways and other state roads. A copy of this information on property addresses is in the Land Register and linked to the Cadastre. Similar conditions apply regarding valuation information where the municipality allocates property numbers, which may comprise one or more cadastral properties. A copy of this information is also in the Land Register and linked to the Cadastre.

The longer-term goal is that the new registration system must be able to collect this information regularly in the databases from which they originate using SOA.

**DMR:** *A new national Digital Motor Register is expected to go into operation in 2009.*

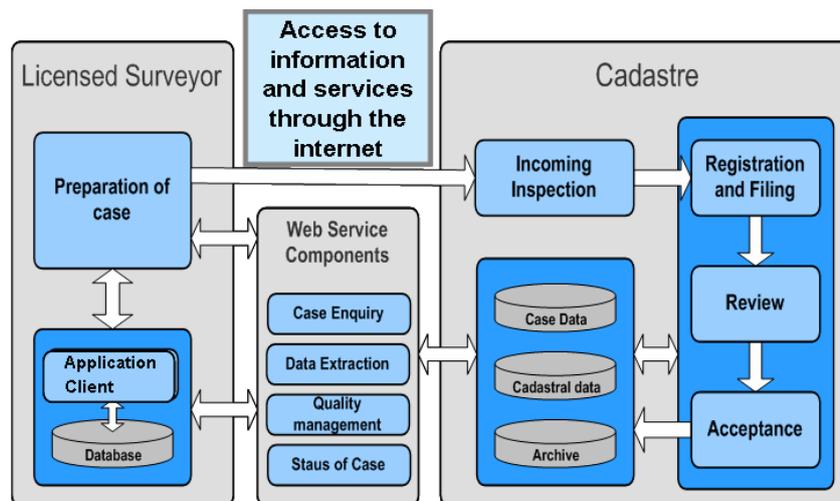
In the mechanical registration of documents concerning cars in the “carbook” (motor vehicle securities register), an automatic comparison with information in the DMR could take place.

**TDC:** The central government has entered into an agreement with TDC A/S, under which all citizens have been able to freely acquire a digital OCES signature since 2003, which can be used for communication with public authorities. The OCES signature can be ordered by filling in an electronic application form at TDC's website. OCES signatures can also be issued to enterprises and their employees.

## 7. E-REGISTRATION IN THE CADASTRE

In the new Updating and Quality Management System (Mini-MAKS), which will be put into use in 2008, the cadastral register and the cadastral map will be gathered in one database, and there will be better opportunities for using the land surveyor's digital information directly in the registration of the cadastral changes in the Cadastre. This is a technical modernisation of the Cadastre, which may take place within the framework of the Subdivision Act.

The Cadastre includes approximately 2 mill. cadastral properties. In 2007, approximately 13,200 cadastral cases were received, and approximately 18,800 new properties were created in Denmark. DKK 85 mill. was paid in subdivision fees and approximately DKK 44 mill. in service charges.



**Figure 2** Mini-MAKS business model

In future the private licensed land surveyors must submit a fully digital case package in XML format to the National Survey and Cadastre. Submission will take place via the MIA case processing system, which the National Survey and Cadastre developed together with the Danish Association of Licensed Land Surveyors in Private Practice. Via the MIA, current cadastral data is collected in the Cadastre for processing in the land surveyor's own IT system together with the land surveyor's measurements and surveys. On the basis of the land surveyor's cadastral surveys of new boundaries etc., the boundary picture, and the attributes linked to the individual boundaries are arranged in relation to the new boundary picture, before the case is submitted to the National Survey and Cadastre for registration in the Cadastre via the MIA. Apart from registration documents, the case package now also contains relevant scanned declarations and the land surveyor's digital signature, and it must be prepared for digital archiving in the National Survey and Cadastre.

In connection with registration of the cadastral changes in the Cadastre in the National Survey and Cadastre, a letter of approval is produced and sent electronically to the land surveyor, the

Land registration authority, the municipality and other involved authorities. At the same time, a relevant extract of changed data is submitted electronically to the common municipal property data system (to ease the subsequent update of cadastral data in ESR).

## **8. ALL ROUND DEVELOPMENT**

As mentioned at the beginning, the Danish government is focusing on digital administration to make it better and more efficient. The establishment of the Steering Committee (Styregruppen for Tværoffentlige Samarbejder) has brought into focus that digitalisation should not take place as isolated activities with the individual institutions, but should take place across authorities and levels of government.

### *Digitalisation will continue to be extended*

Modernisation of registration in the Land Register and the Cadastre fully live up to these intentions. Instead of making organisational changes to support modern and efficient work processes, IT systems are currently being developed which integrate the land registration system and the cadastral system, and which integrate the work processes of the private sector. One example worth mentioning is the new localisation database for easements and buildings on rented land, for which Land Registry is responsible, but where it has been agreed that the National Survey and Cadastre is responsible for the technical solution, cf. paper on this at FIG-ww.

In cadastral cases, the land surveyors will prepare a fully digital case which can be used directly in the update of the Cadastre. Via the SOA, tools will be available for the land surveyors, so they can quality check the cases themselves to an ever larger extent before submitting them for approval and registration in the National Survey and Cadastre. To begin with modernisation of the cadastral systems is primarily targeted towards the interplay between the land surveyors and the National Survey and Cadastre as well as case processing in the National Survey and Cadastre. In the next phase, it will be necessary to focus on the interplay with the other authorities, which are part of the cadastral process. Case processes and documents will also become digital here.

In connection with the modernisation of land registration, the interplay with the financial sector, lawyers, land surveyors etc. will become digital. This means that the IT systems in the private sector must be able to check and deliver digital documents directly to the land registration system, and the intention is that for the majority of cases it will not have to use manual case processing in the Land Registry Court. However, it is predicted that a longer implementation period will be necessary, so in this area there will still be outstanding development work after the systems are put into use at the end of 2008.

### *Considerations about the expansion of property registration*

The modernisation of registration in the Land Register and the Cadastre has also brought focus on the basic registration of real property where there is a fundamental difference between registrations, depending on whether landed properties or owner-occupied flats are involved.

Developing the new registration system and the digital interplay with mortgage credit institutions and banks etc. has created a desire that the authorities involved and the procedures and registrations applying for the formation of cadastral properties should also apply for owner-occupied flats.

In 1963, when the new property type, *owner-occupied flats* emerged, it was decided to register the subdivision of the property in the Land Register by registering the inventory of the owner-occupied flats with maps of each flat, which have to be prepared by a private licensed land surveyor before or at the time of registration in the Land Register of the first title deed of one of the flats.

There are grounds to consider whether owner-occupied flats should be registered in the Cadastre instead. In that case the regulations on registration and formation of owner-occupied flats in the Executive Order on Registration in the Land Register, should, to the extent necessary, be transferred to the Subdivision Act.

Such a change would mean that land surveyors should submit cases for subdivision in and conversion of owner-occupied flats to the National Survey and Cadastre. Maps of owner-occupied flats and other case documents could perhaps be stored in the cadastral files and made available in the same way as cadastral case documents.

There are approximately 225,000 owner-occupied flats in Denmark, of which approximately 53,000 are located in the City of Copenhagen and approximately 22,000 in the City of Frederiksberg.

Such a change also seems to be in line with the preconditions that were the basis for the municipal structural reform, in which one of the goals was that the same type of tasks should be placed at the same administrative level throughout Denmark. The municipal structural reform was implemented effective as of 1 January 2007, where the former 273 municipalities were combined to 98 municipalities. In this regard changes in the management of tasks were also implemented in the City of Copenhagen and the City of Frederiksberg; cf. the above current changes with regard to collection of cadastral tasks in the National Survey and Cadastre.

Shortly after the entry into force of the Owner-Occupied Flats Act in 1963, an agreement was made between the municipality and the City Court in the City of Copenhagen on fixed procedures in connection with preparation and attestation of owner-occupied flat cases. The object of this agreement was to ensure uniform and appropriate documentation of the location and extent of owner-occupied flats, taking into account the chronology, as an ever increasing number of subdivisions and other owner-occupied flat changes require certainty regarding which map is the most recent version of the owner-occupied flat maps. At the City of Frederiksberg, an agreement has also been made on a fixed procedure in connection with notification for registration in the Land Register of documents on subdivision in owner-occupied flats.

The considerations on applying for amendment of the Subdivision Act, so it will also include owner-occupied flats, are therefore a natural extension of the changes arising from the current modernisation of registration in the Land Register and the Cadastre.

It has also been stated that there is an increasing need to register installations in several levels (storeys), for example basement car parks or shops etc. which are not owner-occupied flats. This may include that installations to be mortgaged separately or in other ways should be managed in the same way as real property.

Such needs also raise questions on whether such installations should be allocated a uniform identification and registered in the Cadastre, so that the same procedures used in the registration of property could be used to the extent necessary. The question has been raised, but no elucidation work on registration of this type of installation has been initiated. No further considerations have been made in Denmark on establishing a three-dimensional Cadastre.

## **9. CONCLUDING REMARKS ABOUT ORGANISATIONAL CONSIDERATIONS**

In Denmark the modernisation of registration in the Land Register and the Cadastre is being implemented without the tasks being brought closer together organisationally. As described above, this includes very ambitious modernisation, where documents and work processes become fully digital, and where interplay between the systems becomes fully digital and automatic.

This model is fully in line with the government's policy to focus on cross-authority cooperation in order to achieve efficiency and quality improvements. During 2008, both systems are expected to be put into operation, and then the years to come will show whether the ambitions have been realised.

## **REFERENCES**

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## BIOGRAPHICAL NOTES

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