

Comparative Analysis on the Cadastral Systems in the European Union

United Kingdom

National Mapping
Land Valuation
Land Registration

Prepared for the Permanent Committee on Cadastre of the European Union by the Agencies responsible for land administration (cadastral) activities in the United Kingdom

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European Union Permanent Committee on Cadastre

Comparative Analysis of Cadastral and Land Administration Systems in the United Kingdom

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1. Preface

How this Analysis was prepared

This Analysis comprises separate but associated papers prepared by each of the eight Agencies in the United Kingdom responsible for the land administration functions which will be found in cadastral organisations in mainland Europe.

The United Kingdom comprises three separate jurisdictions each with their own law making powers; England and Wales, Scotland, and Northern Ireland. The term 'cadastre' is not used in the United Kingdom but the functions usually comprised in Cadastral activities in mainland Europe are carried out by particular Agencies in each of the three jurisdictions. Each has its own Land Valuation and Land Registration systems. National Mapping is undertaken by one organisation for England, Wales and Scotland and a separate organisation for Northern Ireland.

These systems share many similarities but also some differences with system elsewhere. Nevertheless the objectives of good land administration are those of cadastral organisations in Europe and world wide.

The contact names and email addresses for each of the Agencies are shown at Part 6 of this document for those who wish to make further enquiries about cadastral and land administration functions in the United Kingdom.

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2. Introduction

Defining characteristics of the United Kingdom systems

In order to understand the land administration systems in the United Kingdom the following important characteristics need to be understood.

First, all the functions normally to be found in the varying cadastral systems of continental Europe are to be found in the United Kingdom. The misconception that the United Kingdom does not have a cadastre is true only to the extent that the term is not used. The history and constitutional structure of the United Kingdom has meant that functions described as ‘cadastral’ in some but not all countries in continental Europe are administered in a particular way in the United Kingdom.

Secondly, England and Wales, Scotland, and Northern Ireland each has its own law making powers. This means that separate agencies in of these three jurisdictions, which together constitute the United Kingdom, have responsibility, under separate legislation, for the functions of land registration, land valuation and recording land use.

Thirdly, it is important to understand that the National Mapping Agencies (the Ordnance Survey for England, Wales and Scotland, and the Ordnance Survey for Northern Ireland maintain high quality large scale topographic mapping and make it available in paper and electronic formats to all users, continually developing products that meet the public and private needs of customers. Other land administration agencies are customers of the Ordnance Survey and have normal customer/commercial relationship in purchasing its map and survey services.

Fourthly, one distinguishing characteristic of land administration systems in the United Kingdom is the institutional framework and structure within government. Historically the four main elements of land administration; the registration of real rights in land, the creation and maintenance of national mapping, the process of land valuation, and the recording of land use were, and still are, the responsibilities of separate government ministries.

Fifthly, all the agencies are in the public sector. All operate in a customer led and business driven environment where financial and customer service standards are a priority and where targets are set and announced and actual performance is measured and reported publicly. All draw on private sector support where this contributes to the standard of public service that can be delivered.

Sixthly, the functions of National Mapping, Land Registration, Land Use and Land Valuation are all highly developed and well established over centuries.

The Sections below describe the organisation, functions and inter-relationships of the various Land Administration functions in the various jurisdictions that make up the United Kingdom.

The Agencies responsible for land administration (cadastral) functions in the United Kingdom are as follows:

	England and Wales	Scotland	Northern Ireland
National Mapping	Ordnance Survey	Ordnance Survey	Ordnance Survey of Northern Ireland
Land Registration	Her Majesty's Land Registry	Registers of Scotland	Land Registry of Northern Ireland
Land Valuation	Valuation Office	Scottish Assessors Association*	Valuation and Lands Agency of Northern Ireland
Land Use	Environment, and Agricultural Departments and County and Local authorities	Environment, and Agricultural Departments and Local unitary authorities	Environment, and Agricultural Departments and County and Local authorities

*This is a non-statutory body representing Scotland's 14 Assessors who are independent of the local authorities who appoint them.

The inter-relationship of the land administration or cadastral functions in the United Kingdom can be illustrated by the situation in England and Wales, as follows:

National Mapping

Responsibility for ensuring that national topographic mapping is maintained to specified high standards rests with the **Ordnance Survey**. The Head of the Agency is directly responsible to the Minister who is accountable to Parliament for ensuring that national surveying and mapping meets the specified requirements of the government.

It is the task of the Agency to maintain a continuously updated topographic survey of the country, providing to its statutory customers survey and mapping products which meet agreed specifications that enable those agencies to carry out their statutory functions. It follows from this that the Agency must maintain high professional and technical standards in producing source mapping information which forms the basis of the specialist mapping records maintained by the other land Institutions.

What distinguishes the arrangements in the United Kingdom from many other countries is that whilst the Ordnance Survey does record the physical features on the ground it is not itself the holder or recorder of specialist data on, for instance, ownership rights, land valuation or land use. Such records

are maintained by the particular Agencies referred to below who, because of their specialist responsibilities are able to tailor their records based on Ordnance Survey maps with whatever information is considered necessary. In this scenario the Ordnance Survey Agency is the supplier and the Land Registry, the Valuation Office, the Ministry of Agriculture, Municipalities and other users are customers. These government agencies, as customers, pay the Ordnance Survey Agency for the products and services provided, as do other non-statutory and private users of the Agency's maps.

Whilst the remit and separate accountability for these land and mapping related government functions are clear the 'commercial' relationship ensures the closest of technical and service arrangements between statutory map users and the Ordnance Survey Agency as provider.

Land Valuation

The responsibility for maintaining public registers of property valuations for local taxation purposes rests with the **Valuation Office Agency**, which is a public Agency of the **Treasury** (the Ministry of Finance). The Chief Executive is accountable directly to the Board of Commissioners of the Inland Revenue who are answerable to the Minister. The Valuation Office has a national network of staff in some 80 locations who maintain, by survey, inspection and from other sources, authoritative information on the 'annual value' of non domestic property for rating purposes, and capital value bandings for residential properties for Council Tax. These assessments take account of physical characteristics, ground area, use, and location to arrive at open market value. The Valuation Office uses and relies on property transaction information from Inland Revenue Stamps Office, and works in partnership with **Land Registry**. It also uses the large-scale topographic map produced by the **Ordnance Survey**. The valuations are used by local authorities as the basis for raising local land taxes to finance local services. Valuation Office property information is also used widely in support of public policy.

Land Registration

The responsibility for registering applications relating to land rights including ownership, mortgages, burdens and easements rests with the **Land Registry**, which is a public Agency of the **Ministry for Constitutional Affairs** (the Ministry of Justice). The Head of the Land Registry is directly accountable to the Minister. He has extensive quasi-judicial powers and he and his staff will determine the great majority of all issues and disputes relating to land rights. The interests registered are guaranteed by the State and those whose rights are registered can be indemnified if they suffer loss through an error or omission on the register. Citizens are free to appeal to the High Court if they wish to challenge the decision of the Registrar. This is very rare.

The Land Registry is responsible for keeping and updating the land register, which is open to public inspection. A certificate of registration (which is a copy of the register held at the Land Registry) is issued to each registered owner, or to the lender where the owner has taken a mortgage to buy the property. Each certificate and register incorporates an official plan, prepared by the Registry's staff, depicting the extent of the registered property and any registered rights or burdens. This official plan is based on the largest available scale of the national topographic map published by the

Ordnance Survey (the National Survey and Mapping Agency). When an owner seeks to sell or otherwise deal with the land he uses a copy of his registered title as proof of his or her ownership or other rights.

Land Use

The overall responsibility for ensuring that information on land use and land classification is maintained rests with the **Department for Environment, Food and Rural Affairs** (for information relating to Agriculture) and the **Office of the Deputy Prime Minister** (for most other information). In many instances the Department delegates to Municipal Authorities the statutory responsibility for maintaining the necessary records on land use and planning information.

The various Agencies and departments of the Ministries with direct responsibility for maintaining these statutory records also use the large scale topographic maps produced by the **Ordnance Survey**. The Ministers are accountable to Parliament for ensuring that these statutory land records are maintained although, in practice, day to day responsibility lies with the appointed Heads of the Departments and Agencies in central or local government.

3. Section A

Land Valuation

This Section describes the functions, structure and relationships of the Land Valuation Agencies in the three jurisdictions of the United Kingdom

- a) England and Wales
- b) Scotland
- c) Northern Ireland

a) Land and Property Valuation in England & Wales:

The Valuation Office Agency (VOA)

The Valuation Office Agency (VOA) is an Executive Agency of the Inland Revenue (the Ministry of Finance). It has a national network of 80 offices arranged in 22 Groups across England and Wales, providing statutory local taxation valuation services for business rates and Council Tax purposes. It also has nine District Valuer Services units, aligned with the English regions, Scotland and Wales, providing valuations for Inland Revenue taxes, 'right to buy', and bespoke non-statutory valuation services across the public sector.

The VOA is committed to take a key role in driving the modernisation of the property taxation system, and to being the partner of choice for the public sector in the delivery of valuation and property advice.

The VOA currently has just over 5000 staff, but this is expected to rise to nearly 6000 during the next five years due to planned revaluations for non domestic rating in 2005, Council Tax in Wales in 2005, and Council Tax in England in 2007. VOA is responsible for compiling and maintaining lists of rateable values for 1.6 million commercial properties in England and 100,000 in Wales. For residential property, VOA is responsible for compiling and maintaining lists of Council Tax bandings for around 21.7 million domestic properties in England and 1.3 million in Wales. VOA has an Oracle database and a computer centre in Worthing, operated in partnership with CapGemini.

The VOA's rating and council tax valuations provide the base valuation data for the collection of around £37 billion of local taxation a year. VOA does this work for the Office of the Deputy Prime Minister (ODPM) and Welsh Assembly Government (WAG).

The annual expenditure of the Agency in 2003/2004 was £187 million

Governance of VOA is by a Management Board (with 25% non-executive membership) led by a Chief Executive who is appointed by, and reports to, the Chairman of the Board of Inland Revenue. The Chairman is supported by an Advisory Board representing main clients and non-executives, and by an Audit Committee, which is chaired by a non-executive director. The Paymaster General approves the Agency's Forward Plan on behalf of the Chancellor of the Exchequer and formally announces the Agency's key

targets to Parliament. Policy is set by the Ministers of the client departments: for local taxation this is ODPM.

The VOA head office is at New Court, Carey Street, London WC2A 2JE. The VOA website is www.voa.gov.uk.

Latest Revaluation for Business Rates

Effective 1st April 2000

Next Revaluation for Business Rates

Effective 1st April 2005

Next Revaluation for Council Tax

Effective 1st April 2005 in Wales
1st April 2007 in England

Historical Background

There is a long history in the UK of local taxation based upon the value of land and property, with its origin in the Poor Laws in the early seventeenth century. Valuations for local taxation were originally undertaken by local authorities in England and Wales. There were however concerns that rating valuations should be administered more independently, as local authorities were both setting values and levying the charges against these valuations. In consequence the Inland Revenue Valuation Office has been responsible for local taxation valuations since 1950. Originally both commercial and domestic property values were based upon annual values of each property. Revaluations were carried out in 1956, 1963, and 1973.

In 1990 domestic rating was abolished and replaced by Poll Tax. This in turn was replaced by Council Tax in 1993, which is based upon the capital value of domestic property. Commercial property continues to be taxed based upon rental value.

Modernisation of Business Rates

A revaluation is carried out every five years to ensure that the valuations contained in the rating lists are up-to-date. Although VOA has carried out revaluations previously (in 1990, 1995 and 2000), a rather different approach is being adopted for 2005, to ensure that VOA is working more closely with ratepayers and meeting their needs. Very careful consideration has been given in the run up to the revaluation to finding out what information ratepayers need, when they need it, and how VOA can provide it in ways that are convenient, accessible, timely and easy to understand. The National Ratepayer Valuation Forum and a number of pilot Local Ratepayer Valuation Forums have been used to inform the process.

In preparation for coming into effect in April 2005, the draft Rating List will be published in September 2004. The majority of ratepayers will receive a summary valuation, which presents them with details of the survey data VOA hold about their property, and an outline of how VOA have arrived at their new valuation. Some will receive their summary valuation by post, and

many will be able to view their valuations on-line. This will represent a substantial improvement in transparency, in line with wider government policy. It is hoped that a lower level of appeals will arise as a result, with ratepayers accepting valuations as correct without the need to appeal.

Modernisation of Council Tax

For the English Revaluation in 2007, VOA intends to use an Automated Valuation Model (AVM). This will be the largest single mass appraisal undertaken in the world. Detailed investigation is underway by VOA, to consider the opportunity for use of new, potentially more efficient, technology-driven ways of supporting the valuation process. The AVM has the potential to deliver real innovation to VOA domestic property work. The AVM is a computer-based system that can be used to derive initial valuations from data available on sales of property, of different types, and in different locations.

In 2003 VOA started the considerable task of digitising VOA domestic property data. When Council Tax was introduced in 1993, there was no time to digitise records as the tax was brought in on a very tight timescale. 2007 is the first revaluation to be planned in England since introduction. Previously property characteristics were held by VOA on paper, in the form of plans and ledger entries. Seventeen data fields were identified as key for valuation purposes and are being data captured for all 21.7 million properties. It is hoped that initial data capture will be complete by end of March 2005. This task is currently well on track.

Investigation stages continue and a Ministerial decision to go ahead with development of the AVM is expected over the next few months.

Partnership working with Land Registry

VOA is working in partnership with Land Registry and other organisations which seek to improve the transparency of property markets. Current partnership initiatives seek to share data to improve business applications and also for statistical purposes. To modernise and also with e-conveyancing, it is hoped to bring together the information needs of government in respect of property transactions, in order to reduce burdens on the citizens and business. VOA hopes to take a supply of price paid data from Land Registry for the first time during 2004/2005.

VOA is very keen to forge closer links with Land Registry than has historically been the case, and sees Land Registry as a key partner.

Partnership working with Ordnance Survey

VOA has always used Ordnance Survey maps in its core businesses of preparing valuations and providing valuation services to the public sector. VOA is currently working closely with Ordnance Survey developing its Geographic Information System (GIS) strategy, and business case for implementation. VOA sees GIS as an important tool to enable innovation and modernisation.

VOA is keen to further develop its links with Ordnance Survey.

**Partnership working with Northern Ireland Valuation and Lands
Agency and Scottish Assessors**

VOA maintains close links with the agencies which undertake similar local
taxation functions in Northern Ireland and Scotland.

b) Lands Valuation in Scotland

The Scottish Assessors Association

Historical Background

Although there is still debate on the exact timing, lands valuation in Scotland can be traced back to the 12th Century when separate arrangements were made for taxation of the Spiritual and Temporal Lands. In 1326 there was a partial revaluation of the Temporal Lands so as to provide aid to Robert I and in 1357 a general revaluation to raise taxation to meet a ransom for King David II. In 1275 Pope Gregory X caused a valuation of all Church property (Bagimont's Roll) to provide revenue for the relief of the Holy Land. At this time there remained assessment of personal property, particularly in the burghs.

In 1643, in order to support the Scottish army, commissioners were appointed to make up a roll of the net rental values in every sheriffdom. Similar arrangements applied under Oliver Cromwell's Parliament in 1656. In 1670 Parliament enacted that the "valued rent" be the only basis for land taxation. However due to the passage of time and the lack of a cohesive system of land valuation many difficulties arose in the local assessment, levy and collection of taxes. This was addressed by the Poor Law Amendment (Scotland) Act 1845 which prescribed that to provide for relief of the poor, a rate be levied according to the annual value of the lands and heritages within each parish.

Difficulties continued however in dealing with new developments, such as the railways which crossed through many parishes and the need for several valuation rolls to cope with the many different rates collected for municipal and local purposes. Finally, in 1854 there was enacted the legislation which is regarded as the foundation of today's system of lands valuation in Scotland.

The Modern System

Since the enactment of the Lands Valuation (Scotland) Act 1854, Assessors have been responsible for the valuation of all heritable properties for local taxation purposes within their respective valuation areas. Revaluation however remained piecemeal until the enactment of the Valuation and Rating (Scotland) Act 1956, which established the quinquennial system that continues today but with the roll being made up on an annual basis. New properties were entered in a Supplementary Roll but altered properties could only be dealt with in the next year. The Local Government (Scotland) Act 1975 provided for a revaluation roll to remain in force until it was superseded by a new roll, with changes being made on a daily basis and the "effective date" shown in the Roll.

Until the Abolition of Domestic Rates Etc (Scotland) Act 1987 both domestic and non-domestic properties were subject to rating valuation but from 1 April 1989 all domestic property was deleted from the Valuation Roll and taxation raised instead by personal, standard and collective Community Charges (the "Poll Tax"). These were short lived however and eventually abandoned in 1993 following major civil unrest and

demonstrations, particularly in England, where they had been introduced a year later than in Scotland. “Poll Tax” was replaced by the Council Tax.

Currently all non-domestic properties are shown in the Valuation Roll and domestic subjects are contained within the Council Tax Valuation List. These documents form the basis for levying Non-Domestic Rates and Council Tax by Scotland’s 32 Local Authorities.

Each of the 32 local Councils within Scotland is a valuation authority and responsible for appointing an Assessor who, in terms of statute, must compile and maintain a Valuation Roll and a Council Tax Valuation List. There are however only fourteen Assessors in Scotland, four are appointed directly by single Councils and the remaining ten are appointed by Valuation Joint Boards comprising elected members appointed by two or more Councils. Where a Valuation Joint Board exists, all the duties, powers and responsibilities of the constituent Councils as Valuation Authorities are delegated to the Board.

The Assessor

The functions of the Assessor are different from those of most other Local Government Officers whose duties are to carry out the policies of Authorities, as determined by elected councillors. The Assessor requires to balance the interests of individual ratepayers and taxpayers against those of others, in terms of valuation levels and the independence of the Assessor is necessary to ensure that decisions are made on considerations of value without political pressure.

The Assessor is an independent statutory official and the duties imposed by the relevant legislation are imposed on the Assessor and not the employing authority. In carrying out the statutory duties the Assessor does not act as an officer of the employing authority. The actions of the Assessor are subject to scrutiny through an appeals process, initially at local level before a Valuation Appeal Committee whose members are appointed by the Sheriff Principal. Appeals at first instance may also be heard by the Lands Tribunal for Scotland if the issues involve facts or evidence likely to be “complex”. A right of appeal on a point of law is available from the local committee or Lands Tribunal to the Lands Valuation Appeal Court (part of the Court of Session) which is the final arbiter in such matters.

Unlike his English equivalent (VOA Valuation Officer) the Assessor is not part of a government agency and does not have the same type of relationship with Ordnance Survey or Registers of Scotland. In essence the Assessor is a commercial customer of these organisations although with the development of an all Scotland website for Assessors this is changing.

The Scottish Assessors Association

The Scottish Assessors Association (SAA) was instituted in 1975 when Scottish local government was previously reorganised and is the successor body to the Association of Lands Valuation Assessors of Scotland (1957) and earlier bodies extending back to The Association of Lands Valuation Assessors (1886). The SAA continued in being after the 1996 reorganisation of Scottish local government.

Although a non statutory organisation, all Assessors and their senior staff are members of the Association. One of the principal functions of the Association is to facilitate a consistency of approach in the administration of the Non-Domestic and Council Tax valuation legislation. The policies and decisions of the Association have a bearing on how individual Assessors carry out their statutory duties, but each Assessor is an independent official.

The Association works through a series of Committees and associated Working Parties, which meet in advance of quarterly plenary sessions. The SAA also liaises with the Valuation Office Agency (VOA) in England and Wales, the Northern Ireland Valuation and Lands Agency (NIVLA) and the Republic of Ireland Valuation Office (RIVO) in matters of common interest.

Revaluation

A valuation of non domestic properties is undertaken every five years and is referred to as Revaluation. The Assessor must provide a Valuation Roll listing of these properties, which is available for public inspection. Each entry in the Roll includes the names of the proprietor, tenant and occupier as appropriate and the Net Annual Value which has been set by the Assessor. 1 April 2000 was the date of the most recent rating Revaluation of all non domestic property in Scotland, England and Wales.

The Valuation Roll remains in force until the next Revaluation. It is amended by the Assessor to reflect all changes to properties. This may mean the inclusion of new properties, the amendment of entries for existing properties in terms of both tenure and valuation or the removal of entries for demolished properties. The Assessor is required to notify proprietors and occupiers of any changes which he makes to the Valuation Roll by issuing a Valuation Notice.

There will be a further Revaluation effective from 1 April 2005 although the actual timetable for implementation will be different north and south of the border. For the first time Assessors and the public will benefit from an all Scotland website (The Assessors' Portal – www.saa.gov.uk) which will “launch” in late October 2004. The site will give access to all of Scotland's valuation rolls so that ratepayers can see an indicative value in advance of formal notification which will take place in February/March 2005. As in England and Wales values will come into force on 1 April 2005.

Net Annual Value is determined by the Assessor and is his estimate of the annual rent, which the property would command on the open market at the “tone date”. The tone or “as at” date is determined by statute as 1 April, two years before the Roll comes into force. Rateable Value is determined from the Net Value and is currently fixed at the same level for the majority of properties. The purpose of Revaluation is to update Rateable Values to more up-to-date rental levels. This creates a closer, fairer link between modern property values and the amount of rates paid by individual ratepayers.

There are two principal factors which contribute to the rates bill received by every non domestic ratepayer; the Rateable Value of the property and the non-domestic rate (or rate poundage) fixed by the Scottish Parliament. In addition actual liability will vary depending on other factors such as transitional arrangements, charitable and vacant property reliefs etc.

In a Revaluation year every ratepayer has a right to lodge an appeal but must do so by a fixed deadline. (For the 2000 Revaluation this was 30 September 2000.) New owners, tenants or occupiers may appeal within 6 months of acquiring an interest in a property and where the Assessor alters the Valuation Roll (by making a new entry or changing the rateable value) the appeal must be lodged within 6 months of the date of the Valuation Notice. Appeals may be lodged at any time on the grounds of error or in the event of a material change of circumstances.

Methods of Valuation

In calculating Net Annual Value the Assessor will employ one of three methods, or principles, of valuation depending on the type of property being valued.

- **The Comparative Principle**

This is the most common method employed and relies on analysis of actual rents passing, from which a general level of valuation for each location and property type (shops, offices, warehouses etc) can be determined

- **The Revenue Principle (or Receipts and Expenditure Method)**

This method was originally used to value “public undertakings” (gas, electricity, railways etc) but fell out of regular use in the 1980’s with the demise of the Assessor of Public Undertakings. Subsequent changes saw the introduction of prescribed values for this class of subject. The principle has always been used for a limited range of properties, such as harbours and ski lifts, where the “monopoly of the place” makes the use of the profits of the business conducted relevant in estimating annual value. With proposals to end statutory prescription for utilities (which are now operating in a commercial market-place) the R&E method will receive a new lease of life.

- **The Contractor’s Principle**

Often dubbed, “the principle of last resort” the contractor’s basis relies on the cost of construction and an assumed rate of return to produce annual value. Since 1990 the rate of return or decapitalisation rate has been prescribed so as to avoid the often lengthy and costly litigation which followed each revaluation as ratepayers from different classes of property sought to argue special reasons why an alternative rate should apply in their case. Considerable work was done by the Joint Professional Institutions’ Valuation Rating Forum in the run-up to the 1995 Revaluation to set down a modern explanation of the contractor’s basis. Both the SAA and VOA contributed heavily to the production of “The Contractor’s Basis of Valuation for Rating Purposes - A Guidance Note”.

Council Tax

The Assessor is responsible for the preparation and maintenance of the Council Tax Valuation List, which places each domestic property (“dwelling”) in one of eight valuation bands. The band reflects the Assessor’s opinion of the property’s open market value as at 1 April 1991, but taking account of its physical state and its locality as at 1 April 1993 (or, for new dwellings, the date of valuation) and subject to a number of

important statutory assumptions relating to tenure, state of repair and planning. Owners and occupiers may make a proposal (appeal) if they consider the Council Tax Band to be wrong, but subject to strict time-limits.

The Council Tax Valuation List is a public document and contains the addresses and Council Tax bands of all domestic properties in the valuation area. In general terms any kind of house or flat will count as a dwelling if it used as such, including second homes that are not let out commercially. Caravans count as dwellings if they are someone's main home. Certain properties in multiple occupation where facilities are shared may also count as one dwelling. Access to all Council Tax Valuation Lists will be available on the Assessors' Portal when it "launches" in October 2004. Currently there are no plans for a Council Tax Revaluation in Scotland although dates have been set for revaluation in both England and Wales with provision for future revaluations at ten-yearly intervals. The Scottish Parliament is however committed to a review of local government finance which will include the Council Tax.

c) Land And Property Valuation in Northern Ireland: Valuation And Lands Agency (VLA)

Status and Functions

The Valuation and Lands Agency is an Executive Agency of the Department of Finance and Personnel in Northern Ireland. Originally known as the Valuation Office, it has for nearly 150 years been responsible for rating assessments and since 1945 for a growing range of general valuation and estate management duties within the public sector.

The Agency has 3 main functions:

The maintenance of the Valuation List for rating purposes in Northern Ireland and periodically, the preparation of a new Valuation List. The current List contains over 739,000 entries with a total net annual value of £1,064M. This is the Agency's core business and involves the completion of over 45,000 separate valuation assessments annually.

Provision of a valuation, estate management and property data service to the public sector. The Agency delivers to more than 150 clients a wide range of professional valuation and advisory services involving more than 20,000 cases annually.

Advice on all matters relating to land management and valuation is provided to the Department and Ministers, and through the Central Advisory Unit to property centres throughout the Northern Ireland Public Sector.

The Organisation

The Agency's Chief Executive, who has the statutory title of Commissioner of Valuation, is responsible to the Minister for the effective operation of the Agency and the fulfilment of its statutory functions.

The Agency delivers its services currently from a central Headquarters and a network of 7 district offices across Northern Ireland. The public has access to all these offices.

VLA currently has a staff of over 300 of whom more than half are professional and technical grades directly involved with preparing valuations.

VLA Headquarters is at Queens Court, 56/66 Upper Queen Street, Belfast BT1 6FD. The VLA website is <http://vla.nics.gov.uk>.

The Rating System in Northern Ireland

Like the Valuation Office Agency in England and Wales and the Scottish Assessors Office in Scotland the core business of the Valuation and Lands Agency is the maintenance of the Valuation List. The rating system in Northern Ireland is different in several important respects from the rest of the United Kingdom.

At present all the properties on the valuation list are valued on the basis of their rental value. However, no revaluation of domestic property has taken

place since 1976 and a new system based on the capital values of domestic property is now due to be introduced in Northern Ireland in 2007. In contrast to the Council Tax in the rest of the UK it is proposed that this new system will be based on discrete assessments of the capital value of all of the approximately 700,000 domestic properties in Northern Ireland.

In the case of non-domestic properties revaluations based on current rental value information have taken place in 1997 and 2003. It is envisaged that this regular pattern of revaluations will continue on the same basis of assessment.

Like its counterparts in England and Scotland VLA is committed to play a key role in the modernisation of the property taxation system in Northern Ireland. The introduction of a new system of domestic property assessment is a very challenging task in which VLA continues to play a key development role in addition to its ultimate responsibility for delivering fair and accurate valuations.

Valuation and Estate Management Advice Service to the Northern Ireland Public Sector

Due to the structure of local government in Northern Ireland VLA has historically played a much wider role in this regard than its equivalent organisations in the rest of the UK. This role comprises the provision of a full range of professional advice on all property matters to a large number of public bodies. This advice is not just limited to the areas of compensation and national taxation but also includes the provision of asset valuations, negotiation of leases and many other services.

Relationship of VLA with Lands Registry of Northern Ireland and Ordnance Survey of Northern Ireland

Like VOA in England and Wales VLA has developed partnership arrangements with both Lands Registry and Ordnance Survey. The most important current aspect of these arrangements relates to the establishment of a geographic information system which will relate to the new domestic rating system described above.

4. Section A

Land Registration

This Section describes the functions, structure and relationships of the Land Registration Agencies in the three jurisdictions of the United Kingdom

- a) England and Wales
- b) Scotland
- c) Northern Ireland

a) Land Registration In England And Wales:

Her Majesty's Land Registry (HMLR)

Land Registration The Historical Background – a general overview

The 'English' system of land registration is part of the common law system of the United Kingdom and so is distinguishable from many systems of continental Europe. Similar systems are to be found in many of the former British Colonies. Its objectives are the same as in mainland Europe and its modern systems similar in many respects as the following narrative endeavours to explain.

Before 1862, when the first Land Registry Act became law, there were no systems of land registration in England and Wales apart from deeds registries in two counties - Yorkshire and Middlesex. Characteristics of the feudal systems of tenure still prevailed. As late as 1925 as little as 14% of the population owned property. The great majority of the people lived in rented or tied houses or apartments. There was little personal wealth for the majority of the population.

One of the great initiatives of the social and economic reformers of the 19th Century was to promote the introduction of public registers of land ownership and to establish effective systems of land and property transfer. Their aim was to widen the number of private owners or stakeholders in land and property.

The Land Registry Act of 1862 introduced a voluntary system of land registration. This failed because of a too high requirement of accuracy of boundary demarcation and of title examination leading to expense and even dispute. Successive Laws in the late 19th Century sought to remedy the defects. In 1875 the concept of registration with 'general boundaries' was established and in 1897 the law required that the national Ordnance Survey Map would become the basis of registered mapping. In 1899 compulsory registration on sale was first introduced.

These developments; compulsory registration on sale, and registered mapping based on the Ordnance Survey map with general boundaries, are the cornerstones on which the land registration system in England and Wales has been built. The major land law reforms of 1925, including the Land Registration Act of that year, provided the statutory basis of the present day system. The law gave the Chief Land Registrar the powers to grant secure and guaranteed marketable titles so building public confidence in the registration system. A fundamental review of the 1925 legislation was

undertaken in the late 20th Century leading to the new Land Registration Act 2002 which facilitates further development of land transfer in the computer age.

The volume of business ‘on the register’ is very large. In 2002-03 some 4.6 million transactions creating new ownerships and other rights were registered and over 11 million enquiries, requests for copies of registers and plans, or requests for guaranteed searches were made. All sales of freehold land and all leases for over 7 years are handled by the Land Registry as are many other registrable rights and burdens such as mortgages. Purchasers, lenders and others only secure the legal title to their new interests once an application for registration has been received at the Land Registry.

The guaranteed land register provides the certainty and security which has made it possible for people and businesses to buy and sell land and property with confidence using simple and inexpensive procedures. The ability to deal in land and to raise money on property has facilitated investment for development and improvement.

Aims and Objectives

The principal aims of the Land Registry are:

- to maintain and develop a stable and effective land registration system throughout England and Wales as the cornerstone for the creation and free movement of interests in land
- on behalf of the Crown to guarantee title to registered estates and interests in land for the whole of England and Wales
- to provide ready access to and guaranteed land information so enabling confident dealings in property and security of title to achieve progressively improving performance targets set by the Lord Chancellor (the Minister of Justice) so that high quality services are delivered promptly and at lower cost to users

Detailed Objectives are agreed each year between the Minister and the Chief Land Registrar. Performance and Financial targets are agreed after consultation with the Treasury (the Ministry of Finance).

Reference to ‘the Crown’ above reflects the constitutional position of the United Kingdom. Registration of title is an exercise by the State of its sovereign authority.

Definitions

Under the land registration system in England and Wales **Land** is defined as not just the surface of the earth but includes the buildings on the land and the structures beneath the surface, **Land Registration** is defined as the process of maintaining a register of real rights in land. A **Land Register** is described in some jurisdictions as an Immovable Property Register or as a Cadastre.

Scope

When land registration was established in England and Wales in the last century it was realised that not all land could be brought on to the register at once. Priorities had to be established. As a result it was decided to progressively designate local authority areas (municipalities) as areas in which land become compulsorily registrable 'on sale'. London was the first area (in 1899-1901) and now the whole of England and Wales is subject to compulsory registration. Land can be registered voluntarily at any time.

Once land has been first registered other transactions and dealings, such as mortgages, discharges, the creation of new rights of way, bankruptcies, covenants, leases etc. affecting the land are registrable. On this basis the register constitutes a complete record of subsisting legal interests, rights and burdens.

All land, whether owned by private persons, farmers, businesses, public and private institutions, local or central government, or the Crown is subject to the provisions of the Land Registration Acts. The legal estate in land, or an interest in land, is not established until an application for registration is properly submitted to the Land Registry. No priorities for registration were established between different categories of land (for example publicly owned land or agricultural land). Once a municipal area was established as a compulsory area all sales were registered as they occurred. Since April 1998 new legislation has extended compulsory registration from just sales to all changes of ownership, and to first mortgages relating to unregistered land.

Guarantees and Indemnity

Under the provisions of the Land Registration Act titles are guaranteed by the State. In practice this means that if anyone suffers actual loss as a result of an error or omission on the register they are entitled to rectification of the title and/or indemnity. The Chief Land Registrar acts as a title insurer. A feature of the protection is that rectification and/or indemnity can be effected even if the error or omission has not arisen as a result of a mistake by the Land Registry. This means that if the Land Registry unwittingly gives effect to a registration of an interest, and it then transpires that the transaction or the documents were the subject of fraud, anyone who has suffered loss as a result of registration can be indemnified. Indemnity payments take account of the extent to which a person has contributed to any such loss by their carelessness. The Land Registry is able to seek recovery of any indemnity that is actually paid and any costs from the persons guilty of the fraud. The Land Registry guarantee extends not only to the land register but also to any search certificates or official copies of registers and plans issued in response to a properly lodged application. In 2002-03 indemnity payments totalling £2.65 million were paid on 799 successful claims. This total has to be set against the total value of land registered (approximately £3000 billion), and the number of registered titles (over 19 million). Indemnity paid each year amounts to less than 0.64% of total annual income. The strength of the system is that the State guarantee, backed by indemnity, provides the confidence on which the property market depends.

The Land Registry maintains an Indemnity Fund from which any payments must be made. This Fund currently stands at £6.2 million. It is financed from the Registry's income from fees paid for services and transactions and would be replenished or increased from income or reserves as required.

Size of the system

The population of England and Wales is 54 million

It is estimated that there are 23 million separate parcels of land of which nearly 20 million are registered. The majority of unregistered properties are government or municipal properties which have not been subject of any sale since compulsory registration provisions became law.

Services to the public

The work of the Registry can be divided into two broad areas:

- transactions which create, change or cancel entries on the register

The land register, which is wholly open to public inspection, is constantly updated by the registration of sales of property, associated mortgages and discharges of mortgages. Other registrations relate to the creation of new rights or a mortgage or discharge not associated with a purchase.

- searches and information enquiries

The majority of searches and enquiries are made by those contemplating buying or otherwise dealing with land or lending money on land. These are the essential enquiries made by an intending buyer or lender to ensure that there are no impediments, risks, or unknown burdens affecting the land. Under the English system the issue of an official certificate of search also gives the applicant 'priority' for 30 working days ahead of any other transaction that may arise. This system of protection is greatly valued by purchasers and lenders

A significant number of enquiries will also be made by those who wish to find out ownership and other information about the legal interests in a property. These enquiries could be from tenants, neighbours, family members, creditors, law enforcement agencies, local municipalities and other official bodies.

Organisation of the Land Registry

The Land Registry has a Head Office in London and 24 regional offices throughout England and Wales. Each of these regional offices serves a defined geographical area comprising a number of municipalities. Its Computer Centre is in Plymouth.

In each Regional Office the Land Registrar is responsible for maintaining the land register for the region. Under the provisions of the Land Registrations Act the Land Registrar must be a lawyer. He or she has extensive quasi judicial powers under the law to grant title and to resolve disputes.

Each Regional Registry is managed by an Area Manager who is responsible for finance, personnel, production, and meeting operational and financial

targets. On average each office serves areas with a population of 2 million and employs in the region of 320 staff.

Policy – privatisation - and improving management in government

During the Conservative administration from 1979 - 1987, there were extensive reforms of public sector management, not least within the Civil Service. The aim was to improve services to the public and increase value for money. The introduction of modern management techniques underpinned the policy. Each government department was subject to an independent and rigorous scrutiny to establish:

- If all or any of its tasks need be done at all (abolition)
- If those tasks that needed to be done could be carried out entirely by the private sector (privatisation)
- If particular tasks that could not be wholly privatised could be carried out under contract by the private sector (contracted out), if not
- What internal reforms could be introduced to ensure improvements in efficiency

The Land Registry was subject to these scrutinise. The government decided that the first two of these options, abolition or wholesale privatisation, were not appropriate for the Land Registry. This decision recognised the unique role of land registration as an impartial judicial process which had to operate free from any conflicts of interests dealing equally with the land and property interests of citizens, commercial enterprises, financial institutions, and government. The public confidence in the land registration system rested substantially in its actual and perceived role as an arm of the judicial system but independent of government influence.

One of the most significant reforms in the UK Civil Service was the establishment of ‘Executive Agencies’. All units of the Civil Service in the business of delivering services to the public, as distinct from pure policy and advisory activities, were established as Executive Agencies. Each Agency was given clear objectives and specific targets set by the Minister in conjunction with the Treasury. Greater freedom was introduced for Agencies to establish their own pay and grading regimes.

All Executive Agencies were headed by a Chief Executive accountable directly to the Minister but operating at ‘arms length’. Chief Executives were appointed by open competition. A greater emphasis was placed on management and on identifying the needs of customers. Those Executive Agencies which raised income became candidates for Trading Fund status under the Trading Funds Act. This introduced full commercial accounting, allowed agencies to invest money and retain funds over the year-end. Challenging financial targets were set requiring progressive measurable improvements in unit costs and service delivery. Greater flexibilities were allowed to Executive Agencies than had previously been the case when these units formed parts of large government departments.

Importantly Agencies were given the scope to contract out those activities where market testing demonstrated that value for money could be achieved without any diminution in the quality of service and without issues of confidentiality or conflict of interest arising. Public/private partnerships were encouraged where the contributions of both sectors could add value to a service. In the fields of computerisation and on-line access to registry data

such partnerships have been very effective.

The Land Registry, as a self-financing organisation delivering services to the public, became both an Executive Agency (in 1990) and a Trading Fund (in 1993). The statutory post of Chief Land Registrar was designated as its Chief Executive. Each Agency operated to a 'Framework Document' which set out the requirements of the Minister, the Agency's targets, lines of accountability, reporting requirements and delegations agreed. The additional flexibilities and the delegations expressed in the Document provided a positive platform for effective management and transformed the Land Registry into a business-like organisation without diminishing its statutory role, its impartiality and the quality of its service.

Following the Labour party's success at the 1997 and 2001 general elections these public sector policies have been substantially retained and developed by the present government.

Targets and Performance Measures

These are defined in measurable terms relating to costs, outputs, financial performance, speed of service, quality of service and specific developmental targets. Performance measurement systems exist and are independently evaluated to record actual results against targets set. The range of targets and the performance measurement system operates at every level of management from the Agency at national level, at Regional Offices and in operational Sections within Regional Offices. The Pay of the Chief Executive and annual bonuses that can be earned by staff are influenced by the results achieved against target.

Computerisation

Until 1974 the Land Registry's records and procedures were wholly paper based. In that year the Registry introduced a system, then revolutionary, of telephone searching for those seeking to establish whether or not third party interests subsisted on unregistered land (a name index was maintained of Land Charges).

In 1986 the main land register project was launched whereby individual land registers were computerised. All transaction and enquiry processing was done by staff using terminals. All 19 million + computerised registers can now be accessed on-line by any user who has a credit account. Users are billed monthly for the enquiries they make. The direct on-line access and telephone searching systems have transformed access to land information. Substantial savings in manpower and costs have also resulted from the streamlined internal processing of transactions. Registers can also be viewed and copied by the public through the Land Registry's Web based service Land Register Online. Professional users can access the register through a tailored system 'Registers Direct'

The Land Registry Mapping Project is progressively computerising the individual title plans for each property and all the Index Maps for England and Wales. The Registry has led the current development in the UK of a National Land Information Service. This is bringing together, by the use of a unique property reference number, the computerised land information records of various government agencies so enabling 'one-stop' access by users.

The Land Registry, working with the Ordnance Survey, the Valuation Office, Local Authorities and others led the development of the National Land Information Service (NLIS) and is a participating member of the European Union Land Information Service (EULIS) Project. The Land Registry is now leading the project on 'electronic conveyancing' (electronic land transfer). Initially those submitting applications and documents for registration will be able to do so on-line. The aim is to move toward a 'paperless' system. With on-line access already functioning for information enquiries the basis and potential to extend this to on-line registration has already begun. With the support of all the major players in the land and mortgage markets developments continue toward launching on-line conveyancing where transactions can be effected by coordinated on-line systems between lawyers, lenders, the Land Registry and local authorities (municipalities)

Financing Land Registry Services

Central to the fee policy is the requirement in the Land Registration Act that fees should be set at a level sufficient to cover the financial expenditures and outgoings of the Land Registry... and no more. Under the Land Registration Acts it is the Minister who has the power to set fees, but he does this on the advice of a Statutory Rule Committee under the Chairmanship of a High Court Judge. The Chief Land Registrar, a representative of the Bar, of the Law Society and of the Royal Institution of Chartered Surveyors are members of the Rule Committee. Its recommendations require the concurrence of the Treasury (Ministry of Finance). The objective is to contain fees at as low a level as is possible consistent with delivering an improving service. In practice it is the Chief Land Registrar who takes the initiative on fees changes reflecting the targets set for the Agency and the prevailing market position.

Fee Income

In 2002-03 the total Land Registry Fee Income was over £400 million (approximately 580 million Euros)

Consultation – and reference

There are three Joint Consultative and Advisory Committees. These are with the professional institutions representing main users; the Law Society (Lawyers), the Council of Mortgage Lenders (Banks and other lenders), the Royal Institution of Chartered Surveyors (Surveyors).

The Consultative process and the customer surveys are to ensure that the Registry is aware of areas requiring improvement or where new services are needed.

An Independent Complaints Advisor investigates complaints against the Registry where an individual is not satisfied with the way the Registry has handled an application or complaint.

References may also be made by a constituent, through his or her Member of Parliament, to the Parliamentary Commissioner (the Ombudsman) where a person considers that the Land Registry has been guilty of maladministration.

b) Land Registration in Scotland:

The Registers of Scotland (ROS)

Land registration in Scotland dates back as far as the 13th century. Scotland's law of property is fairly complex in its origin. It derives from a mixture of statutes: statutes of the 'old' Scottish Parliament prior to the union of England and Scotland in 1707; statutes of the United Kingdom parliament in London; and statutes of the 'new' devolved Scottish Parliament established in 1999. A major influence on the law of property in Scotland was feudal law, which is still evident in land registration activities today. Influences can also be traced back to Roman law. Though Scotland is now a constituent part of the United Kingdom, it retains its own distinctive legal system that is quite different from the legal system operating in England.

The process of land registration in Scotland has always been dynamic, and even today land registration is in transition between the General Register of Sasines, a register of deeds established in 1617, and the (relatively) new Land Register, a map-based register of title established in 1979, which is progressively superseding the General Register of Sasines.

As with the Land Registry for England and Wales, Registers of Scotland, the Government Agency responsible for land registration in Scotland, also operates closely with the government agency for national mapping, Ordnance Survey, and uses their digital maps as the basis for the mapping element of land registration.

Although the Scottish system of land registration has developed from different historical roots than many systems of Continental Europe, its aims and objectives are the same and its modern systems are similar in many respects to those elsewhere in Europe as the following narrative endeavours to explain.

Land Registration The Historical Background – a general overview

In Scotland, the registers were established seven centuries ago to give citizens the power and protection of having their rights recorded in an official register. Registers were initially kept in Edinburgh Castle until the Register of Sasines, a public register of deeds covering all of Scotland, was set up by an Act of Scots Parliament in 1617. This public register was created to reduce the possibility of fraud in relation to property transfers. The Register of Sasines worked well for many years and still works reasonably well today.

However, in the 20th century, many countries in the world began to move towards systems of registration based on registration of title to land, and not just registration of deeds. These systems typically featured the use of maps and the provision of guarantees for registered titles. It became apparent that the Register of Sasines, having neither of these features, was archaic and in need of reform.

Legislation

The Registration Act of 1617 introduced the Register of Sasines to Scotland. Under the terms of this Act, a symbolic ceremony involving the passing of a handful of earth from the seller to the buyer marked the transfer of title to the land. This ceremony, which was inconvenient and time-consuming, was abolished by the Infefment Act of 1845. Following on from this Act, title was transferred purely by deed, and not by symbolic act.

In the 350 years since the introduction of the Register of Sasines, there has been much legislation that has influenced the land registration process in Scotland. By far the most dynamic legislative change, however, was brought about by the Land Registration (Scotland) Act 1979, which introduced title registration to Scotland. The Land Register is a register of interests in land and reveals the current state of the title to any registered interest. The land to which the interest relates is identified on the Ordnance Survey map. When an interest is registered, Registers of Scotland issues a Certificate of Title, called the Land Certificate. This defines precisely the extent of the property on the Ordnance Survey map and also gives details of current registered owners as well as charges over and rights and burdens affecting the property. The accuracy of the information is guaranteed by the state and compensation is payable for loss suffered as a result of an error or inaccuracy in the Register.

Land Registration is not compulsory in Scotland, but since registration is the root of a real right to property, all property tends to be registered. Without registration there is no real title, only the personal right of the buyer against the seller under the written contract.

The Land Register is guaranteed, public and accessible. As with the Sasine register, there is full public access to the information on the Land Register. A property on the register can be searched for by the name of the owner or by the address of the property and a search can be conducted by telephone, letter, e-mail, fax or by a visit to one of the Registers of Scotland Customer Service Centres. These three features provide citizens with the certainty and security to transact with land and property with confidence and contribute to simpler conveyancing procedures being required.

Any remaining traces of feudal land tenure within the Scottish land registration system will be completely abolished on 28 November 2004 when the Abolition of Feudal Tenure (Scotland) Act 2000 comes into force. The main effect of this Act will be the replacement of the feudal system of land tenure with a system of outright ownership of land. Feudal superiority's and their attendant rights to collect feu duty and enforce burdens will be largely abolished.

The Title Conditions (Scotland) Act 2003 modernises and clarifies the law on real burdens and other title conditions that remain following the abolition of the feudal system. It sets out a framework of rules for the imposition of conditions in the system of ownership of land, complementing feudal abolition. Together with the Abolition of Feudal Tenure Act, the Act will necessitate a full reappraisal of every registered title to land in Scotland.

Objectives and Vision

Registers of Scotland is responsible for 16 public registers in Scotland. Its work is dominated by two registers that relate to rights in land - the Land Register of Scotland and the General Register of Sasines. The long-term objective of Registers of Scotland is to maximise the benefit of land registration to customers, stakeholders and the citizens of Scotland. This objective will be achieved by compiling and maintaining accurate registers, improving both the breadth and depth of information available in the registers and by developing complementary land and property information. The vision of the Registers of Scotland is to be recognised as one of the most efficient and effective land registries in the world, where:

- the data shown in each land certificate is a definitive statement of comprehensive land and property ownership information,
- the register relates the legal extent of land and property ownership to a regularly updated topographical map of Scotland,
- public access is provided to all information contained in the registers by electronic and other means,
- there is provision for electronic registration of land and property transactions.

Definitions

Scots law recognises the difference between moveable and immovable property. ‘Immovable’ property is land (including things attached to the land) and rights to land. The ownership of a parcel of land normally implies ownership of any building situated on the parcel. ‘Moveable’ property is anything other than land. The Land Register is concerned solely with the registration of immovable property.

The Land Register is a register of interests in land. It reveals the current state of the title to any registered interest, and the land to which the interest relates is identified on the Ordnance Survey Map (Ordnance Survey is the national mapping agency for Great Britain which provides Registers of Scotland with digitised mapping data). The word “cadastre” is not one commonly used in the UK, where for historical reasons the development of land administration institutions has taken place in a different way from many other countries in Europe. To all intents and purposes, however, the “cadastral” functions as they relate to identification of property for land registration purposes, are carried out by the respective land registration organisations within the UK.

Scope

Scotland was converted to the Land Register on a county by county basis, starting with the county of Renfrew on 6 April 1981, as it would have been impractical to transfer the whole of Scotland to the Land Register at the same time. By the 1 April 2003 all 33 counties of Scotland had been converted to the Land Register. Only when a property is sold or leased is it registered in the Land Register and so the Sasine Register remains operational for transactions that do not induce registration in the new Register, such as remortgages. At the end of March 2004 the Land Register contained 1,010,748 registered titles. It is still less than half way to the complete coverage desired, with Land Register coverage standing at 38.9% at the end of March 2004. It is estimated that 1,601,049 titles remain to be

registered. As the remaining properties transfer for value they will enter the register as time progresses. Additionally, the transfer of local authority housing stock to housing associations will add significantly to the coverage of the Land Register. There is a possibility that Registers of Scotland may also introduce a policy of conversion from the Sasines Register to the Land Register for all transactions in order to speed up the conversion process.

Once land has been registered in the Land Register, all other transactions affecting that land, such as mortgages, discharges, the creation of new rights of way, bankruptcies, covenants, leases etc, are registerable. On this basis the register constitutes a complete record of subsisting legal interests, rights and burdens.

Guarantees and Indemnity

The Land Registration (Scotland) Act 1979 establishes the entitlement of a person who suffers loss to indemnity (i.e. financial compensation) when the loss is as a result of an error in any land certificate or in any information provided by Registers of Scotland. The Register may be rectified, but only if there is no prejudice to 'a proprietor in possession'.

A feature of the protection is that rectification and/or indemnity can be effected even if the error or omission has not arisen as a result of a mistake by the Land Registry. This means that if the Land Registry unwittingly gives effect to a registration of an interest, and it then transpires that the transaction or the documents were the subject of fraud, anyone who has suffered loss as a result of registration can be indemnified. Indemnity payments take account of the extent to which a person has contributed to any such loss by their carelessness. The Land Registry is able to seek recovery of any indemnity that is actually paid and any costs from the persons guilty of the fraud.

The Registers of Scotland will enlist the help of independent advisers such as the District Valuer in order to effect a fair quantification of the amount of indemnity to be paid. A dissatisfied claimant may resort to the Lands Tribunal (provision for which is made at section 25 of the 1979 Act) or take other action in law. Unsuccessful claims can also give rise to complaints to members of the Scottish Parliament and/or the Parliamentary Ombudsman.

In 2002-03 indemnity payments totalling £76,725.10 were paid on 53 successful claims and in 2003-2004 payments totalling £410,416.68 were paid on 86 successful claims. These figures have to be set against the total value of the transactions processed by Registers of Scotland each year (estimated to exceed £20 billion).

There is no separate Indemnity Fund in Scotland. Payments are made from Registers of Scotland's funds and a contingency for indemnity is provided for in the accounts, based on a review of the outstanding claims, potential claims and an estimate of the settlement values. The provision for indemnity included in the current accounts for 2004-2005 is £500,000.

Size of the System

The population of Scotland is 5 million.

It is estimated that there are 2,611,797 separate parcels of land of which nearly 1,010,748 are registered. The majority of unregistered properties are government or municipal properties, or large estates in the north of Scotland, which have not been subject of any sale since compulsory registration provisions became law.

A large volume of transactions are registered each year. In 2003-04, 307,782 transactions creating new ownerships and other rights were registered in the Land Register and 122,840 were recorded on the Sasine Register, and over 57,000 enquiries, and requests for copies of registers and plans were made.

Services to the public

The work of Registers of Scotland in relation to the Land Register and the Register of Sasines can be divided into two broad areas:

- (i) transactions which create, change or cancel entries on the registers

The Sasine Register is updated with registrations related to the creation of new rights and/or conditions, or a mortgage or discharge of mortgage not associated with a purchase. The registration of a sale or of a lease will result in the interest being transferred onto the Land Register. The Land Register is constantly updated by the registration of sales, leases (lasting more than 20 years) of property, and associated mortgages and discharges of mortgages. Once land has been first registered other transactions and dealings, such as mortgages, discharges, the creation of new rights and/or conditions, bankruptcies, covenants, leases etc. affecting the land are registerable in the Land Register. Both registers are wholly open to public inspection.

- (ii) searches and information enquiries

The majority of searches and enquiries are made by those contemplating buying or otherwise dealing with land or lending money on land. These are the essential enquiries made by an intending buyer or lender to ensure that there are no impediments, risks, or unknown burdens affecting the land.

Customers include citizens and organisations whose property we register as well as solicitors and financial institutions with whom we deal directly. A significant number of enquiries will also be made by those who wish to find out ownership and other information about the legal interests in a property. These enquiries could be from tenants, neighbours, family members, creditors, law enforcement agencies, local municipalities and other official bodies.

Customers can also search for information direct via the internet through our online service Registers Direct and via www.scotlandshouseprices.gov.uk .

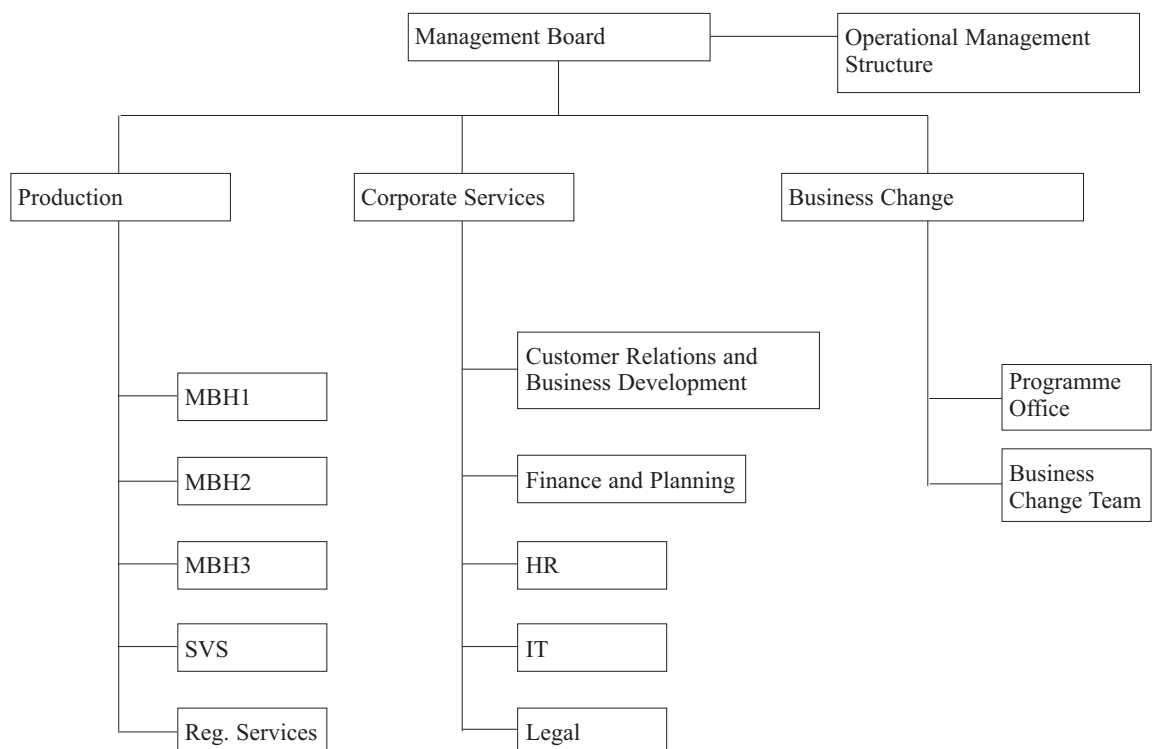
Organisation of the Registers of Scotland

Registers of Scotland has over 1400 staff occupying four offices in Edinburgh and Glasgow. The main office is in Edinburgh, with a branch in Glasgow and two Customer Service Centres, one in Edinburgh and one in Glasgow.

At the top of the organisation is the Chief Executive who is known by the title of the Keeper of the Registers. He is supported by a Deputy Keeper and a Managing Director. The Keeper deals with strategic and policy matters, whereas the Managing Director is responsible for the daily running of the organisation. These three, together with six senior managers, form the Management Board.

The Management Board meets once a month so that its members can report on their activities and their progress against targets, and discuss any major problems or new initiatives.

An organisation diagram of Registers of Scotland is shown below:



Policy – privatisation - and improving management in government

As with the Land Registry of England and Wales, Registers of Scotland was also subject to the extensive reforms of public sector management during the Conservative administrations from 1979 to 1997.

Registers of Scotland, as a self-financing organisation delivering services to the public, became both an Executive Agency (in 1990) and a Trading Fund

(in 1996). Registers of Scotland is operationally autonomous, which automatically comes with the status of an Executive Agency. It is managed by its own Chief Executive, the Keeper, who is appointed by the Justice Minister. The appointment is not political, but it is normally made under a contract for a fixed number of years. The Keeper is the Accounting Officer for the Registers of Scotland Trading Fund and, as such, is liable to appear before Parliamentary Committees. The Secretary of State is responsible for setting the policy and resources framework within which Registers of Scotland operates.

Targets and Performance Measures

As a specialist organisation, Registers of Scotland is allowed to set its own policies and strategy. It is accountable to the new Scottish parliament through the Scottish Executive. The Scottish Minister for Justice has political responsibility for Registers of Scotland. In practice, he delegates this responsibility to his department, the Justice Department. Registers of Scotland submits an annual report to the Scottish Minister of Justice and it has to agree its business objectives and targets with Scottish Ministers.

Ministerial targets are set for: the return on net capital employed, reducing standard production costs, achieving turnaround times for recording or registering deeds; registration accuracy rate; continuing to operate at Charter Mark Standards; maintaining market share and income level from the Land Register reports service; and continuing the growth of Registers Direct.

Registers of Scotland sets out a 5-year strategy in a Corporate Plan which detail corporate objectives, critical activities, change programme, workload, staffing and financial projections for the first year of the period. A Business Plan is produced each year, setting out Registers of Scotland's aims and detailed objectives for that year. These are set by the management board to be consistent with the Ministerial targets. Registers of Scotland's performance in reaching these targets is continuously monitored throughout the year.

Computerisation and access to information

Registers of Scotland has made rapid advances in the computerisation of all its registration processes, with heavy investment in new technology. Both the Sasine Register and the Land Register are fully computerised. The Land Register was computerised from its inception in 1981, with digital maps being introduced in 1993 and the Digital Mapping System (DMS) being introduced in 1995. The DMS contains digital maps, Title Plans and an electronic gazetteer. The Sasine Register was computerised in 1993 and some 9 million pages of historic paper records were scanned and digitally imaged. All documents now submitted for registration are scanned and digitally imaged. No paper records are kept.

The development of online services started in the late 1980's, with a full internet service, Registers Direct, being launched in 2001. This subscription service provides immediate access to the information held by Registers of Scotland over the internet. Fees are based on each search carried out and customers are invoiced fortnightly. Ownership details, mortgage information, rights and encumbrances affecting the property, title plans and house price information are all available through Registers Direct. The primary users of Registers Direct are property professionals, local

authorities, investigative bodies (including police, Inland Revenue and customs and excise) and finance and credit institutions. For ordinary members of the public who wish to access information on house prices in a particular area, the website www.scotlandshouseprices.gov.uk provides the prices paid for property in a particular post code in any 6 month period for a one off charge of £4.70 which can be paid online by credit card.

In common with many land registration agencies all over the world, Registers of Scotland is planning for the future and the arrival of the 'electronic deed' and the automation of the registration process. Automated Registration of Title to Land (ARTL) is a programme which aims to introduce paperless, electronic registration for routine Land Register transactions, using software that will enable applications for registration to be processed electronically, without human intervention. Registers of Scotland has already piloted this initiative and it is planned to introduce the first electronic Land Registration service in four counties in May 2006, with a rollout to the whole of Scotland by November 2008. Developing ARTL will require amendment to existing legislation and proposals are being developed to put to the Scottish Ministers for the changes required.

Registers of Scotland is a participating member of the European Union Land Information Service (EULIS) Project and is also a participating member of the Scottish Land Information Service, better known as ScotLIS. This is a programme in which the Registers of Scotland and many other organisations, both public and private, will share all the different information about land holding and land use that they hold on a shared computer platform that is accessible to the public. ScotLIS aims to provide a one-stop-shop with easy and affordable access to a wide range of computer-based information about land and property in Scotland from both private and public sectors. A pilot project was officially launched on the 25th of June 2001 comprising input from Registers of Scotland, Glasgow City Council, British Geological Survey, and The Coal Authority

Financing Land Registry Services

Registers of Scotland is self financing, and has been since the year 1868. Its finances come solely from earned income, most of which comes from registration fees. These fees are set by the Registers of Scotland, under sub-statutory regulations, and are calculated according to the basic principle that costs should be fully recovered. Approximately 8% of income comes from the online Registers Direct service.

Fee Income

The turnover of the Registers of Scotland was £63,533,138 for 2003-04 (approximately 92 million Euro)

Consultation – and reference

The Joint Consultative Committee meets twice a year and consists of Members of the Law Society of Scotland and members of the management board. This Committee was inaugurated in 1975 to provide a useful forum for the discussion of legal and registration matters of mutual concern to the legal profession and the Keeper of the Registers.

Advice to Scottish Ministers on the future direction of Registers of Scotland Executive Agency is given by the Ministerial Advisory Board, which

provides a direct link between the Scottish Executive and Registers of Scotland. The responsibilities of the Board are to report on a quarterly basis to the Scottish Ministers on Registers of Scotland's performance and to advise on strategic issues. Members of the Board have relevant management, financial and corporate experience, and are able to bring independent judgement to bear on issues of strategy, performance, and resources.

If an individual is not satisfied with the way Registers of Scotland has handled an application or complaint, they may seek the advice of a Member of Parliament who may refer it to the Scottish Legal Services Ombudsman.

c) Land Registration in Northern Ireland

The historical background – a general overview

Land Registration was introduced in Ireland 1891 as a result of land reform legislation, prior to that a Registry of Deeds system had been in operation since 1708.

The origins of the land reform date back to the period following the Great Famine of 1845 to 1848, when landlords had set about evicting tenants and creating larger, more economic holdings. The Land League was founded to fight for the rights of tenants, at first demanding Fair Rents, Fixture of Tenure and Freedom of Sale. Subsequently the Irish Party in the British Parliament took up the demands of the tenants, and, eventually, the Land Purchase Acts were passed. Under these acts the Government bought the land from the landlords and transferred the title to the tenants, who repaid the purchase price by annuities paid over a period of years.

To secure the repayments of the land purchase annuities the Government required a system of sure knowledge of the titles of the former tenants. To enable land to be sold by the new owners, a reliable system of proving their titles was also needed. The Registration of Deeds system would clearly be inadequate. Its functionality was too limited, and it would not be able to cope with the huge increase in the number of “owners” brought about by the Land Purchase Acts (from a few thousand to potentially millions). A precedent for what was apparently an effective system of Title Registration was available from Australia, where Robert Torrens, (a graduate of Trinity College Dublin) had succeeded in having such a system introduced in 1857. Torrens visited England and Ireland promoting his system. In 1891, the Local Registration of Title Act was passed, setting up a Land Registry in Ireland, based on a modified version of the Torrens system.

Following the partitioning of Ireland in 1921 the records relating to the six counties forming the new state of Northern Ireland were moved to Belfast. A number of further Land Purchases Acts were passed in the period leading up to the second world war which significantly increased in the number of titles held in the register.

Due to the way in which the land reform was enacted changes to titles relating to properties in towns and cities continued to be recorded in the Registry of Deeds while transactions affecting rural farm land were recorded in the Land Registry. Annual transaction volumes affecting rural land remained constant until the late 1960's when the demand for housing meant the encroachment of urban property into rural land. The grow in private sector house building plus the introduction of right to buy legislation for tenants of public sector housing resulted in continual growth in business volumes.

The Land Registration Act of 1970 introduced legislation enabling the registry to commence a program of compulsory first registration to bring those titles registered in the Registry of Deeds under the umbrella of the Land Registry. Due to budgetary constraints and other priorities the program

did not commence until 1996 with a small pilot project. Only properties sold for value are affected by the legislation. It was quickly recognised that the viability of extending the program beyond the initial pilot area was dependent on the introduction of computerisation to the registry. The extension of the program is discussed further in the section on computerisation.

The more stable economic conditions created by the reduction in terrorist activity and lower interest rates have in recent times created a boom in house building and re-mortgaging which has resulted in a dramatic increase in business volumes. In 2003 – 2004 in excess of 220,000 transactions necessitating a change to the register were received along with 266,000 requests for searches and copies of documents.

The registry operates a general map system as opposed to the file plan mapping systems in use in the other United Kingdom registries. Under the general map system the boundaries of all holding are shown on a single map sheet in conjunction with one another.

The register is an open register and anyone can, on payment of the appropriate fee, view the map and text records or any document relating to those records.

Aims and Objectives

The principal aims of the Land Registry are to support the conveyancing and property markets in Northern Ireland by -:

- guaranteeing the validity of title to registered land;
- responding quickly and accurately to requests for land information;
- providing electronic services to customers in accordance with the Modernising Government initiative and in pursuance of the Department's E-business strategy and the over-arching ISIT Corporate Strategy Framework which is the key reference for Government organisations in Northern Ireland;
- increase the amount of land information available to the public by extending compulsory registration of title throughout Northern Ireland; and
- resolving disputes regarding registered land.

Targets are Objectives are agreed each year between the Minister and Chief Executive.

Guarantees and Indemnity

In common with the other United Kingdom registries titles in the Land Registry of Northern Ireland are guaranteed by the State. The guarantee does not however extend to the information contained in the Registry Map unless all parties common to a legal boundary request that it be registered as conclusive. The number of applications to register boundaries as conclusive in any given year is extremely small.

The registry has had few if any claims for compensation in recent years.

Size of the System

The population of Northern Ireland is approximately 1.7 million.

It is estimated that there are around 500,000 titles registered in the Land Registry, this equates to approximately 60% of the total of all titles to land in Northern Ireland. The remaining 40% of titles are registered in the Registry of Deeds. A progressive increase in the number of titles registered in the Land Registry will happen over the next ten years due to the impact of the recent extension of the program of compulsory first registration to all of Northern Ireland.

Services to the public

The work of the Land Registry can be divided into two main areas

Applications for Registration

These are applications to update the information held in the register. On average 400 are received each day. The most common application is that relating to the sale of an existing house where the previous owners mortgage is released, the ownership updated with the new owners' name and a new mortgage recorded against the title.

Land Information Services

These services relate to personal searching, official searching and the provision of copy documentation. These are important services, which assist purchasers in ensuring that there are no matters, which will prevent the final completion of a sale. The registry also operates a Priority search service where anyone entering into a transaction affecting a title can apply to have priority for 40 days ahead of any other transaction that may arise.

These services are now totally electronic and the Registry has noticed a considerable broadening of the customer base in relation to personal searching. Prior to the introduction of electronic searching the main customers would have been those dealing with land transactions such as solicitors, legal services providers etc. The customer base has now extended to include local councils, law enforcement agencies, banks and revenue collectors.

Organisation of the Land Registry

Due to the small size of Northern Ireland all Land Registry operations are centred on the headquarters building in central Belfast.

The Registrar of Titles is responsible for maintaining the Land Registry of Northern Ireland and the post is supported by a Deputy Registrar of Titles. Under the provisions of the Land Registration Act the Registrar of Titles must be a lawyer. The post holder has quasi-judicial powers to grant title and resolve disputes.

Day to day operational matters relating to finance, personnel and achievement of performance targets are the responsibility of the Director of Corporate Services and Planning. Currently there are 200 staff employed by Land Registry.

Policy – privatisation – and improving the management of government

During the early 1990's there was extensive reform of the Northern Ireland Civil Service. The reforms focused on the need improve services and increase value for money and mirrored those which had been successfully applied to the civil service in England, Wales and Scotland in the 1980's.

Following a comprehensive options review in 1995 a decision was taken that the Land Registry should become an executive agency within the Department of the Environment. In 1996 the Land Registers of Northern Ireland agency was established. The agency has responsibility for three separate registries, Land Registry, Registry of Deeds and the Statutory Charges Registry (a registry recording statutory restrictions against land or property).

Executive Agencies are headed by a Chief Executive who is accountable to the minister. Given the small size of the Land Registers agency the Chief Executive also fulfils the role of Registrar of Titles. On launch the Chief Executive made customer focus as a key aim for the agency, establishing communication channels with customers and concentrating on their main service requirements.

The agency operates under a framework document which sets out the requirements of the minister, the Agency's targets, lines of accountability and delegation limits.

The Agency operates under a net running cost funding regime. Under this arrangement it has access to the fees generated by workload over and above that which was projected. This arrangement has worked well, however it is recognised that a move to Trading Fund status may ultimately prove more appropriate. The potential to become a Trading Fund is currently under investigation.

Agency status has had a very positive impact on the organisation focusing managers on being more business-like in the delivery of services.

To recognise its establishment the Agency hosted a Land Registration conference attended by representatives from a number of other registries. This conference was the foundation for bi -annual conferences where issues of mutual interest are discussed. The popularity of the conference has grown with registries rotating its hosting and the number of participants broadened to include a number of European registries.

Targets and Performance Measures

The agency's key performance measures are:

1. Finance
 - 1.1 Level of financial and budgetary control achieved.
 - 1.2 Percentage efficiency gains on running costs expenditure.
 - 1.3 Full cost recovery achieved

2. Output

2.1 Number of application units processed per member of staff per month.

3. Efficiency

3.1 Turnaround times for registration and land information services.

3.2 Unit cost targets achieved.

4. Quality of Service

4.1 To achieve an accuracy rate of at least X % in processing applications for registration.

4.2 To achieve an X% customer satisfaction rate based on independent customer surveying.

Computerisation

The registry has only recently introduced computerised processes. The delay was in the main due to the following factors:

- the small size of the registry,
- a failure by the parent department to make a firm commitment to the considerable capital funding required to deliver the computerisation programme, and
- limited technical capability within both the parent department's information technology unit and the registry to deliver the system.

As a result of a number of major failures with public sector IT procurement the last conservative government introduced the Private Finance Initiative (PFI). The major tenets of the initiative were to lever in private sector finance and expertise into the delivery of public services. Using this procurement approach the specification of requirements is expressed in output terms thereby allowing for innovation and the use of emerging technologies. Design and development risks and any associated cost overruns are hence passed to the private sector. The private sector gets its return on its initial investment via staged payments over the lifetime of the contract.

Following its introduction in 1993 all IT procurements were required to demonstrate that they had testing for the suitability or otherwise of using the initiative as a procurement option. Following the election of the labour government in 1997 the initiative was re-named the Public Private Partnership (PPP) initiative.

Following a lengthy procurement exercise Land Registers awarded a PFI/PPP contract to Syntegra the systems integration division of British Telecom (BT) in the summer of 1999 for a range of computer related business services. The contract is for an initial 10 year period with a review option at year 7 and possible extension to 15 years. The main elements of the service are as follows

- back conversion of the map and text archives of the three registries into computerised format,
- provision of a suite of standard office products, e-mail, word processing etc,
- the replacement and upgrading of the computer network within the headquarters building,
- the provision and ongoing maintenance of all computer hardware,
- the development of a computerised registration system with integrated workflow, text processing and digital mapping capability,
- leasing of the Ordnance Survey large scale digital map for all of Northern Ireland, and
- change management and training services.

The contract was the first fully financially free standing (PFI/PPP) in IT, Land Registers did not make any up front investment in the project, BT gets a return on its investment by receiving a payment each time a transaction is completed by the system. Given the demand led nature of the Land Registry's business the arrangement fits well with any future upward or downward trends in business volumes.

BT viewed the advancement of the Compulsory First Registration program and the increased levels of business it would generate as key to the recovery of its investment. In order to ensure that the system was capable of dealing with the increased volumes Land Registers made the extension program dependent on confirmation of the systems performance.

The computerised system is known as LandWeb and has been developed by close collaboration between Land Registers and Syntegra project teams. Land Registers providing the detailed business knowledge and Syntegra the design and development innovation. A key success of the project has been the opportunity to examine and totally re-engineer the registration process. The integration of workflow, text processing and digital mapping means that a single user can now complete all registration tasks at a single session. This provides a major efficiency when viewed against the previous compartmentalised approach to registration.

The digital map consists of two distinct data sets i.e. vectorised Land Registry data and Ordnance Survey Northern Ireland large-scale digital mapping data. The two data sets are subject to update independent of one another. Land Registry receives regular updates from OSNI of areas where there is continuous change, for example a new housing development, which are used to update the information underlying the Land Registry data. This approach allows the registry to quickly confirm that a legal boundary is or is not reflective of its ground position.

Computerisation of data and operations has allowed the registry to introduce direct access services. LandWeb Direct went live in September 2002, currently the service is only available to registered users who apply for the

service, however it is intended to extend the service to the general public. The service allows users to search, view and download locally information held in the archives. The service uses the Government Gateway as a means of securely authenticating users accessing the service. Its popularity has grown rapidly since its introduction with in excess of 20,000 transactions now being completed each month, 84% of all Land Registry searches are now completed via the internet. The system provides the following payment options, suspense account, credit or debit card. A recent survey by the Law Society of Northern Ireland of its members confirmed that LandWeb Direct is the most used website by practitioners.

The LandWeb project has totally transformed operations and has allowed Land Registers to, in a very short timeframe, get on a par with the other United Kingdom registries. The LandWeb project has received many commendations, the highest being winner of the IT category at the United Kingdom PFI of the year awards in 2000 where it was described by the judging panel as truly demonstrating the transformative nature of PFI.

GIS Strategy (Mosaic)

The introduction of digital mapping within the registration process has strengthened Land Registry's commitment to advancing the potential for the use of geographic information (GI) in Northern Ireland. Land Registry together with Ordnance Survey Northern Ireland, the Valuation and Lands Agency and the Northern Ireland Housing Executive form a key sectorial grouping examining ways in which GI can be enhanced in the land and property arena.

E-Conveyancing

The success of the on-line access for information enquiries has created a firm foundation for the potential to extend the service to on-line registration. The Law Society for Northern Ireland have expressed a keen interest in becoming involved, however a number of changes to Land Registry legislation will be required to enable e-conveyancing to become a reality.

Financing Land Registry Services

The Land Registration Act requires that fees for services must be set at a level sufficient to cover the expenditure incurred in operating the Registry. The setting of fees is the subject of consultation with the Land Registry Rules committee, the Minister and those bodies forming the customer forum - the Law Society of Northern Ireland, Estate Agents representative body, the Council of Mortgage Lenders, the Northern Ireland Housing Executive and the Northern Ireland Consumer council.

The main objective in setting fees is to set them as low as is practical while continuing to improve the delivery of service.

Fee Income

In 2003 –2004 the total Land Registry fee income was just in excess of £12 million.

Consultation and reference

The Land Registry has established the following communication channels to seek feedback on all aspects of customer service:

- the Customers' Forum which represents the views of solicitors, estate agents, mortgage lenders, law searchers and public sector customers;
- regular meetings of the Land Registry / Law Society Liaison Committee;
- analysis of customers complaints;
- comment sheets at public offices; and
- annual customer satisfaction survey.

5. Section C

National Mapping

This Section describes the functions, structure and relationships of the National Mapping Agencies in the three jurisdictions of the United Kingdom

- a) England and Wales, and Scotland
- b) Northern Ireland

a) National Mapping for England and Wales, and Scotland

Ordnance Survey

Ordnance Survey is the national mapping agency of Great Britain, with a long history of producing paper maps and intelligent geographic data. This information benefits tens of millions of people every day, assisting public sector activities from helping police to detect crime patterns and locating sites for house building, to planning new countryside access and controlling the flow of urban traffic. A study in 1999 found that the information produced by Ordnance Survey underpins £100 billion economic activity in the country.

In the “cadastral” environment Ordnance Survey provides contextual mapping information to help defining the spatial extent of a property or title in the real world. Ordnance Survey’s data is used as reference data by the other organisations mentioned in this document to define the spatial context of their map data which is often derived from Ordnance Survey data.

Staff numbers and geographic spread

Ordnance Survey’s 1500-strong workforce includes more than 350 surveyors who constantly measure and record the changing British landscape from a network of field offices stretching from Inverness to Truro.

Information gathered by ground and air surveys is added to a large database at the Southampton head office, building an electronic map documenting the whole of Britain. This new generation of data is called OS MasterMap®, which references more than 440 million man-made and natural landscape features. Aerial photographic images, property address data and integrated transport information complement this topographic mapping, with around 5000 changes made to the database every day.

Historical Background

Ordnance Survey was formed in 1791, when the government realised that in planning defences to repel invasion, the South Coast of England needed to be accurately mapped. It instructed its Board of Ordnance – part of the defence ministry of its day – to complete the necessary survey work. This led to the decision to map the whole country, with the first Ordnance Survey map published in 1801 of the County of Kent.

The first large-scale map was converted to computer form in 1973 and by 1995 the last of the 230,000 maps was digitised. As a result, Britain became the first country in the world to complete a national ‘electronic jigsaw’ of highly-detailed maps.

Trading Fund

Ordnance Survey was granted Trading Fund status in 1999, to be financed through data licensing rather than direct funding from the tax payer. This gives it the freedom to innovate and develop with a duty to observe specific financial targets set by the Treasury. The finances of the collection, maintenance and provision of national geographical information are separated from general taxation revenue, providing a sharper focus on achieving value for money and providing key services and supplies more effectively.

Ordnance Survey does not seek general funding from Parliament each year but reports to Parliament through a minister in the Office of the Deputy Prime Minister. Its Trading Fund status means it can reinvest profits and plan for the longer term rather than on a year-to-year basis.

NIMSA

When Ordnance Survey became a Trading Fund, a National Interest Mapping Services Agreement (NIMSA) was put in place. This is a government contract to help fund specific mapping activities that are vital to the national interest but which cannot be justified on purely commercial grounds. They include tasks such as keeping the most detailed mapping of remote areas up-to-date – places where such mapping is vital for public administration, but where there is little other demand. This work is carried out on a not-for-profit basis.

Revenue

Ordnance Survey exceeded the government-set target of a 9 per cent annual average return on capital employed during its first five-year period as a self-financing Trading Fund. For 2003-04 it posted a surplus of £5.6 million (before interest and exceptional charges) on turnover from operating activities of £116.3 million – and has exceeded all the annual financial and service quality targets set for it by Ministers.

Trading revenue in the year to 31 March 2004 rose by a further £7.7 million to £101.6 million, reflecting strong growth in customer base. This includes revenue through commercial partners, which increased by 15% to reflect the growing significance of the value-added products and services incorporating Ordnance Survey data offered by more than 300 companies. Overall operating expenditure for 2003-04 came in at £110.6 million – virtually identical to the previous year – even though this included £2.6 million restructuring costs.

Geodetic reference

Ordnance Survey maintains the geodetic reference system in Great Britain. All mapping products are currently based on a consistent coordinate system for Great Britain, the British National Grid. Ordnance Survey offers a definitive, high accuracy coordinate transformation between the British National grid and the pan-European GPS-based ETRS89, Ordnance Survey also define and looks after the height datums in Great Britain along with their transformations to ETRS89. A real time GPS reference network covering the whole of Great Britain is also maintained with raw GPS data being served to the public for free over the internet. Ordnance Survey is developing a national Real Time Kinematic (RTK) network that will enable centimetric positioning for internal use – with external potential.

Topographic mapping

The mapping data that is most widely used by the other organisations mentioned in this document is topographic data. This data comprises representations of physical landscape features a surveyor can record on the ground or from aerial photography. The data contains no explicit property boundaries but does contain administrative boundaries such as counties or districts. Typical features in the data are building-footprints, road carriageways, pavement extents, fences, hedges and vegetation boundaries. While the corner of a building is a feature that can accurately be identified in the real world even decades after the building has being built (but not altered) the position of a hedge or fence is naturally less accurately defined, but generally still used to suggest property extents. Physical markers, as used in continental Europe to physically define otherwise non-physical boundaries, such as the title extent of a property, are not used in Great Britain.

National coverage for the digital topographic database has been available since 1995 in a tile-based (digital map sheet) environment. Since 2001 the data has been available in a seamless database product called OS MasterMap. Every feature in this database has its own unique identifier or TOID® – a 16-digit reference number that can be shared with other users across different applications and systems. This allows easy data association and greater accuracy, focusing on real-world objects on the map. OS MasterMap's unique polygons can be coloured, improving visual display, hence facilitating the interpretation of what is actually on the ground.

The accuracy to which this data has been collected is closely related to the scale of the original mapping. This was 1:1250 in urban areas, 1:2500 in rural areas and 1:10000 in mountain areas. Thus data in the mountain areas is captured to a lower positional accuracy than that in the urban areas.

Positional Accuracy Improvement

A large amount of the surveys that form the backbone of today's large-scale digital base data was acquired during the first half of the 20th century. At that time it was common practice to use separate, county-specific reference and coordinate systems to survey and display the maps (County Series maps). A fundamental approach to integrate those projections into one common metric coordinate system for Great Britain, the British National Grid, was started in 1935 and finished after the Second World War. With the technology available at the time, the maps were repositioned into the National Grid, but couldn't always be pasted together without discrepancies. It was tried to absorb these into more flexible features, such as rivers or open land, rather than built-up areas, but the inevitable result was non-systematic errors in the resulting map. At the time, and in the decades following these errors were not significant to the users of the maps. However, the arrival of GPS highlighted the errors.

To allow the use of GPS measurements in conjunctions with these maps, achieve internal efficiency gains, and offer a better accuracy standard to the users, it was decided to improve the horizontal positional accuracy of the map data.

In the late 1990s Ordnance Survey started to plan a national program to improve the Absolute Positional Accuracy of its rural large-scale map base.

This affects all rural mapping totalling about 155 000 km² or two thirds of Great Britain's land area. Data delivery began in 2001 and will be completed by March 2006. Until then Ordnance Survey is going to re-issue an average of 5 000 km² of positionally improved topographic data per month.

For users of this data, particularly in the "cadastral" environment this results in the potential need to bring derived datasets, such as digitised property extents, back in sympathy with the positionally improved reference data.

Maintenance and Collaboration

One of Ordnance Survey core tasks is to constantly pick-up physical changes in the real world, integrate them into the map data and make them available to the data users. Therefore modern capture technologies such as GPS, mono- and stereo-plotting from aerial photography are utilised.

Features that require a high currency of updates, such as new buildings, are guaranteed to be available in the map data six months after they have been built. Minor detail, like a changed fence line, is picked up through a cyclic revision programme.

In the case of Land Registry, Ordnance Survey's topographic map data is used to digitise the extent of a title. Ordnance Survey data does not define the legal extent of a title as such, but can be indicative. In order to meet Land Registry's need to access new property developments very closely after they have been built, Ordnance Survey has agreed to survey those developments on request by Land Registry in an agreed time of less than 1 month and deliver the surveyed features to them through a very efficient delivery mechanism on a daily basis.

Ordnance Survey also co-operates very closely with the Valuation Office, Registers of Scotland and most local and central government department, who are all contracted to license digital map data from Ordnance Survey.

Ordnance Survey's active engagement on a European and worldwide level on issues relating to data include EuroGeographics, EuroSDR, the Permanent Committee on the Cadastre, the UNECE WPLA, the International Federation of Surveyors (FIG) and the Open GeoSpatial Consortium.

b) National Mapping for Northern Ireland

The Ordnance Survey for Northern Ireland

Ordnance Survey of Northern Ireland (OSNI) is an Executive Agency in the Department of Culture, Arts and Leisure (DCAL). It is the official Government organisation responsible for supplying mapping and geographic information services for Northern Ireland.

OSNI's work provides the foundation for information about location. It captures and records data about place and location; it defines direction, distance, area and height, and it provides the unique record of Northern Ireland's landscape and built environment.

OSNI information is supplied under license to many customers, primarily to support the work undertaken by Government in the public's interest. However, OSNI also provides its information to many other organisations to support their operations of for their commercial exploitation.

Historical Background

Early in the nineteenth century it became obvious that the local taxes in Ireland, which were called the County cess and based on townland units, were inequitable and that although the names and outlines of the divisions were assumed to be well known, the acreages and rateable values were doubtful. On the recommendations of the Spring Rice Committee a survey of all Ireland at a scale of 6 inches to one mile was authorised by the British Parliament in 1824. Lt Col Thomas Colby was chosen to undertake this task and established his headquarters in Mountjoy House in Phoenix Park, Dublin where Ordnance Survey Ireland remain to this day.

The division of Ireland in 1922 resulted in the emergence of separate Ordnance Surveys: the original body, which had been responsible for mapping Great Britain and Ireland, now responsible for England, Wales and Scotland; the Ordnance Survey of Northern Ireland; and a third Ordnance Survey, which remained in Mountjoy House, taking responsibility for the survey of the rest of Ireland.

In 1981 OSNI carried out a feasibility study to establish the benefits of replacing conventional map production with computer-based systems. The plan involved digital conversion and updating of the paper map archive (completed in 2000) to provide not only a complete digital topographical database of Northern Ireland but, more importantly, form the basis for the development of a geographic information infrastructure linking all major Government and public utility functions.

OSNI in the 21st Century

Today OSNI employs over 160 staff based in its headquarters in Colby House, Belfast and in a number of regional offices throughout Northern Ireland. The job of maintaining the mapping infrastructure provides the main focus of the Agency. The provision of detailed and up-to-date maps is essential to the needs of a modern society, not only are maps needed for land registration and planning purposes they are fundamental to the emergency services and for emergency planning purposes.

OSNI mapping does not in itself define the extent of the legal tile however it is used by the Land Registers of Northern Ireland (LRNI) as the basis for the vectorised Land Registry data

OSNI surveys all of Northern Ireland at scales of either 1:1250 or 1:2500 and the mapping is kept up-to-date through two revision programmes: Continuous Revision (CR) where major topographic change is captured into the database within 6 months of notification and the Periodic Revision (PR) programme where all other topographic change is captured on a regular basis, as follows:

- Built up city, town and village areas are updated at least once every 5 years
- Developed rural areas of high topographic change are revised every 7 years
- Rural areas with low levels of change are revised every 10 years

In instances where LRNI require a survey of a new building development that, due to its unit count, would not be included within the normal CR programme, OSNI will usually undertake a special survey and fast track the supply of the updated digital map tile.

The mapping is updated from aerial photography on digital stereo workstations and by field survey teams using pen computers.

OSNI implemented an internet-based system for the production of address centred maps in November 2003. The online system replaced an existing DOS-based system. The address centred extract (ACEmap) is widely used within the land registration process.

Pointer

Pointer® is the name given to the address database being developed for Northern Ireland with the joint support of Ordnance Survey of Northern Ireland, the Valuation & Lands Agency (VLA) and Royal Mail, in conjunction with local councils. It provides a common standard address for every property in Northern Ireland. Each property has been allocated a unique reference number and geo-spatial coordinates.

The Pointer database was created following a complex data matching exercise on the address datasets maintained by Ordnance Survey of Northern Ireland, Royal Mail and the Valuation & Lands Agency. Following this data matching exercise, extensive ground validation work was undertaken in order to verify the accuracy of addresses. This exercise was undertaken across Northern Ireland, and ended in November 2003.

The project is directed by a cross-organisational Project Board comprising representation from the Northern Ireland E-Government Unit, Ordnance Survey of Northern Ireland, the Valuation & Lands Agency, Royal Mail, Water Service and the Society of Local Authority Chief Executives.

A team has been established within OSNI to manage the development of the Major topographic change is defined as properties or road changes of 10

units or more, where a unit is a house and its associated property boundary, or 20 metres of road complete with footpaths.

Pointer system, and to fully develop and implement the address life cycle to ensure that the integrity of the address data is maintained.

MOSAIC

The MOSAIC Programme is the brand name for the implementation of the Geographic Information (GI) Strategy for Northern Ireland, an initiative being progressed by the Department of Culture, Arts & Leisure (DCAL), through its Agency, Ordnance Survey of Northern Ireland (OSNI).

Over the past two years, Northern Ireland has become the first region within the United Kingdom to develop a GI Strategy. Since the endorsement of the Belfast (Good Friday) Agreement by the people of Northern Ireland, the devolution of power has offered a real opportunity for the local administration to begin to address, in a constructive and inclusive way, the institutional barriers preventing progress in GI.

Significant progress has been made toward achieving this goal, including the creation of an Implementation Project Board, a Programme Office, and a number of sectoral and project groups including:

- Culture & Heritage
- Education and Awareness
- Public Safety & Emergency Services
- Environment & Agriculture
- Land & Property
- Utilities & Networks
- Transport
- Health & Social Improvement
- Statistics
- Key Datasets

The purpose of the Implementation Project Board is to oversee the initial implementation of the Sectoral and Overarching Steering Groups. This Project Board is chaired by the Chief Executive of OSNI and comprises representatives from each sectoral group.

In order to support the work of the Implementation Project Board, a Programme Office has also been established. The office provides administrative and technical support during the implementation stage of the GI Strategy, and provides a focal point for geographic information co-ordination in Northern Ireland, and a first contact point for UK and EC interests.

6. Contact names and email addresses

The following Agencies in the United Kingdom provided the information in this Analysis

Agency

Valuation Office for England (VOA)

Contact: John E Reeves

Email: john.e.reeves@voa.gsi.gov.uk

Agency

The Scottish Assessors Association (SAA)

Contact: Sandy McConochie

Email: amconochie@grampian-vjb.gov.uk

Agency

Northern Ireland Valuation and Lands Agency(VLA)

Contact: Nigel Woods

Email: Nigel.Woods@dfpni.gov.uk

Agency

Her Majesty's Land Registry for England and Wales (HMLR)

Contact: John Manthorpe

Email: landman@dircon.co.uk

Agency

Registers of Scotland (ROS)

Contact: Ailsa Robertson

Email: Ailsa.Robertson@ros.gov.uk

Agency

Land Registry of Northern Ireland

Contact: Gamble, Wally

Email: Wally.Gamble@LRNI.gov.uk

Agency

Ordnance Survey (for England, Wales and Scotland)

Contact: Clare Hadley

Email: Clare.Hadley@ordnancesurvey.co.uk

Agency

Ordnance Survey for Northern Ireland

Contact: Trevor Steenson

Email: trevor.steenson@osni.gov.uk
