

Seminar 4. A Cadastre

Land Information Diffusion: EU Initiatives

JOHAN BODENKAMP

European Commission

First some Eurobarometer statistics showing a general trend that the Internet uptake in Europe is steadily advancing...

EU average of household access to the Internet:

- March 2000: 18%
- October 2000: 28%
- June 2001: 36%
- November: 2001: 38%

Countries like Greece and Portugal lying significantly below the EU average and others, like the Denmark and the Netherlands lie clearly above.

Policy Framework: eEurope

The broad EU policy response to realise the potential of the Information Society was given at the end of 1999 with an initiative called eEurope.

In order to ensure that Europe fully benefits from the Information Society, the main goals formulated were to get every European citizen on-line, to ensure a digitally literate Europe and a socially inclusive process.

These objectives should be met following a new so-called «open method of coordination» to spread best practices, achieve greater convergence towards the main EU goals, and help member States to progressively develop their own policies. This method sets concrete timetables to achieve targets and establishes indicators to benchmark progress and compare best practices.

In general, the eEurope initiative should help to reach the ambitious target set by the political leaders at the Lisbon summit in March 2000.

During this special summit a new strategic goal was formulated for the coming decade, which is to make the European Union the most competitive and dynamic knowledge-based economy in the world by 2010, an economy that is capable of sustainable economic growth with more and better jobs and with greater social cohesion.

Here are some key data about the eEurope initiative:

- It was launched by the political leaders at the Helsinki European Council in December 1999.
- A concrete Action Plan until the end of this year, 2002, was adopted at the Feira Summit in June 2000.
- The first progress report appeared nine months later in March 2001.
- An interesting initiative is eEurope+ launched at the Göteborg Summit in June 2001. eEurope+ is a specific action plan developed by the Candidate Countries and based on the eEurope initiative to stimulate the Information Society in this part of Europe.
- And in February of this year the first comprehensive overview of benchmarking results following the openmethod of co-ordination was published.

In order to get Europe on-line, the Action Plan focuses on the three following main areas:

- A cheaper, faster and secure Internet
- Investing in people and skills
- And stimulate the use of the Internet

These broad areas have been subdivided into 11 action lines and a total of 64 concrete targets were formulated under these action lines to be achieved by the end of this year 2002.

I won't into the details of all the action lines, but if we take a look at the third broad area aiming to stimulate the use of the Internet, there are two action lines that cover the theme of land information, namely eGovernment under point 8, formulated here as: government on-line:

- electronic access to public services, and
- the action line under point 11: Digital content for global networks.

I will first elaborate a bit more on the eGovernment action line and then come back to the digital content action line.

Electronic government or «eGovernment» is a broad term covering several aspects and stakeholders. This figure tries to visualise those main aspects.

eGovernment is all about the delivery of on-line public services, including relevant public sector information and communication with administrations and leading to real interactive transactions between citizens and businesses on the one side and administrations on the other.

eGovernment is also about the use of Information and Communication Technologies to enhance civil participation in democratic processes, through, for example, on-line consultations and digital discussion fora.

In short, eGovernment offers the possibility to make life easier for citizens and businesses through better public service provision and for administrations themselves too by improving its internal efficiency.

The goal of eGovernment is, therefore, to move customers from being in line to going on-line!

If we apply eGovernment more specifically to land register services, it could be formulated as «the use of ICT to improve the delivery of land register products and services to customers».

The on-line provision of land register products and services could improve:

- *transparency*: citizens will better understand how land registry works and what types of products and services exist,
- *availability* of the services around the clock,
- *speed* with improved electronic case-handling, and
- *customer orientation* with user-friendly information and the possibility of personalised services.

The eGovernment action line addresses several specific aspects, such as

- Electronic access to basic public services,
- Identification and exchange of eGovernment,
- A co-ordinated approach for public sector information,
- Promote the use of open source software in the public sector, and
- Simplified on-line administrative procedures for business

I will focus on the first three aspects... and start with the first one: electronic access to basic public services.

Electronic Access to Public Services

To measure the impact of eEurope and of the Information Society in general, the eEurope Action Plan was complemented by a set of 23 indicators. These indicators were the starting point for benchmarking eEurope.

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For eGovernment, a specific indicator was adopted and defined as *«the percentage of basic public services on-line»*.

In order to benchmark this indicator, the European Commission negotiated a methodology and a common list of public services with the Member States. This list includes 12 services for citizens, such as income taxes, job search services and personal documents, and 8 services for businesses, like registration of a new company and public procurement. Land information services were not identified as so-called «basic» public services.

This list of services and the methodology were used for a Commission-sponsored survey to evaluate where Europe stands in the field of eGovernment.

The first results were presented at a Ministerial conference on eGovernment in november of last year.

And in order to measure progress, the eGovernment indicator will be measured every six months. The results of the second measurement will be published next month.

eGov barriers:

Two main conclusions that can be drawn from the results are that:

- Complex administrative procedures and dispersed service provision are two factors that hemper the on-line development of public services.

- Services with rather simple procedures and a co-ordinated service provision, such as job search services or income tax, achieved the best results, whereas services like building permissions or environmental permits are more complex administrative procedcures and received significantly lower scores.

Therefore, it is important to have co-ordinated e Government solutions and extensive back-office re-forms are required to transform complex transactions into simple procedures.

These two elements will stimulate the further development of on-line public services.

eGovernment Best Practices

I will now come to the second element of the eGovernment action line, namely the identification and exchange of eGovernment best practices.

On 29-30 November of last year, the European Commission organised together with the Belgian Presidency the first European Ministerial conference on eGovernment...

35 Ministers and deputy Ministers adopted en eGovernment declaration for future policy action ensuring an inclusive process, promoting trust and security, building on best practice and encouraging participation in democratic activities.

The conference showed how citizens and businesses can reap concrete benefits from on-line public services and brought together in an exhibition interactive eGovernment applications from all over Europe. 60 eGovernment applications were awarded an eGovernment label for good European practice giving them international recognition.

Finally, Commissioner Liikanen announced the organisation of so-called «eEurope awards for innovation in eGovernment» following on the eGovernment labels for good European practice. These new awards will be an important driving force for promoting the exchange of best practices in the field of eGovernment. The first awards will be distributed by the end of this year.

From the 60 selected eGovernment cases, the are also applications that are dealing with land information services.

The first example comes from the city of the Hague in the Netherlands.

The WOZ Infodesk is an application providing citizens and companies of The Hague direct access to information on the fiscal value of property, such as land, houses or business premises. The value of real estate is namely the main determinant of a series of Dutch taxes, such as municipal property tax.

The system has been tailored to the different population groups it targets, such as private individuals, companies, public servants and employees of the local tax authorities. Competencies have been detailed according to these target groups, involving access to cartographic and administrative data like cadastral maps, florr plans and cycloramas (360° pictures of buildings and streets covering the whole city). Information on people, the premises, its use and layout, for example, can also be found. Interested parties can consult the assessment report on-line and compare the value of their property with that of three other comparable properties elsewhere in the city. They are also entitled to ask for additional information on the assessment and may react if they disagree with the data provided.

The second example is the website of the Swedish organisation Lantmäteriet, which deals with land and geographic information in Sweden.

The application provides easy access to maps, aerial photos, satellite images, cadastral information, information on house-prices and other kinds of land information through Lantmäteriet's marketplace. The user can browse and llok for information in different areas, zoom in and out and directly order, download and pay for customised products. Lantmäteriet's marketplace has proved to be and effective tool to reach more potential users with updated land and geographic information, which has also allowed for significant savings in the costs of analyses and decision-making.

Another good European practice in the field of land information comes from Austria and concerns the procedure for foreing citizens to obtain permission to acquire land in Vienna.

Trough this eGovernment application requests for the permission to acquire land in Vienna are submitted to the Municipal Department by electronic upload. Once the applicant has been proven eligible, the user can complete and send the necessary electronic forms, which are available on the Internet. Futher documents to be submitted with the application, such as office copis of the land register entry, the plan of the estate, the sales contract, the passport, or additional motives or explanations etc., can also be uploaded as electronic files.

The last example comes from Ireland and is called PlanMap.

The Limerick Country Council has developed a geographical information system which allows a planning officer, area officer, public representative or member of the public, to access via the Internet current planning applications and a full site history.

The includes information on each application, constraints maps, ordnance survey maps and aerial photographs of each site and a scanned image of planning application files, including application from, maps, drawings, correspondence, Manager's Order (decisions) and digitised photographs of the sites. This system is currently running as a «live» system in the Planning Department.

Limerick Country Council has been engaged in this process for the last two years.

The purpose of providing the system, PlanMap, has been to allow the user, at any location, to have access to data from a number of different sources in an integrated fashion. It is envisaged that this system will become the primary avenue for members of the public to examine planning applications in the future. This is the first system of its kind currently operating in the Republic of Ireland.

In order to support wide dissemination and exploitation of the valuable experiences in the field of eGovernment, and to follow up the recommendation made by the European Public Administration Ministers, the Commission is in the process of setting up a European eGovernment platform.

This platform will be built on two existing initiatives, namely the eForum Association and the eGovernment observatory, which are both supported financially by the Commission.

The e-Forum association is running under the IST research programme and is open to both the public authorities and the private sector. It provides a consultative basis for promoting the exchange of practical experiences across Europe and to develop the best initiatives.

The eGovernment Observatory aims at creating synergies between the IDA programme, which concerns the exchange of data between administrations, and complementary initiatives in the EU and the member states.

The selected good practices identified for the ministerial conference, of which I showed you some examples, will be integrated in this European eGovernment platform.

Co-ordinated Approach for PSI

I will now come to the third and last element of the eGovernment action line, namely a co-ordinated approach for public sector information.

But why is public sector information so important?

Because public sector information is a prime content resource for citizens and businesses.

Access to public sector information enhances transparency in the way administrations work and can bring citizens closer to administrations. It is very important properly inform citizens about running affairs if you want to ensure a democratic process.

Public sector information is essential for businesses to make the right strategies and especially for companies that want to take advantage of the internal market and get a picture of the rights, duties, and procedures that allow them to operate without difficulties abroad.

And, finally, public sector information is in particular important for the content industries as a valuable source to make new information products.

For the moment, however, public sector information is still underexploited in the EU because of several market barriers:

- No common legal framework for re-using the information
- No common principles for storing the information
- No common meta-data
- No, or little experience of public-private collaboration
- Different languages

eContent in eEurope

Against this background, the European Commission published at the beginning of 1999 a Green Paper entitled «Public sector information: a key resource for Europe».

The objective of this Green Paper was to undertake a broad public consultation involving all the actors

concerned to examine the main issues at stake and to trigger a political discussion at European level.

The Green paper was accompanied by several events throughout Europe on the theme of public sector information and a total of 185 written replies were received from stakeholders, which showed the big interest in the subject.

The input of this public consultation process was used to formulate action to improve the situation at European level.

The follow-on of the Green Paper was a Communication entitled «Europe 2002: creating an EU framework for the exploitation of public sector information».

This communication was published on 23 October of last year and gave the first directions of EU action based on the outcome of the Green Paper.

It outlined the leading principle that everybody has the right to re-use PSI when it's generally accessible, which includes commercial re-use of PSI.

Basic orientations were defined on issues like fair trading, pricing, and transparency and the Communication announced the Commission's consideration to propose a Directive in order to achieve a minimum of legal certainty for all players in the European information market.

So the basic message of the Green Paper and the Communication is:

- That the Commission wants to create the conditions for a healthy content and service market,
- that public sector information is an important component of this market,
- that currently market barriers still prevent the full impact of public sector information on economic activity and employment,
- and that it is, therefore, important to create better framework conditions for the exploitation of public sector information.

The next step taken by the Commission was to have an on-line consultation on a working document outlining the content of a possible legal instrument for the re-use of PSI.

80 replies were received on this working document, of which 43% came from public sector bodies and 32% from industry.

Potential re-users (industry) are very positive and clearly indicate that a Directive would be the appropriate instrument to ensure a harmonised legal framework for the re-use of PSI (create a minimum of certainty and transparency on the conditions for re-use).

The data-holders express some concerns about the proposal, in particular about the issue of charging, although they often tend to share the view that the conditions for re-use throughout Europe could and should be improved.

The working document outlines the following principles. Leading principle: right to reuse generally accessible public sector information:

- Transparency: prices and other conditions for re-use should be pre-established and publicly known
- Pricing: non-discrimination (exception for non-commercial use by citizens and NGOs) and cost-orientation
- Prohibition exclusive arrangements: exception: provision of service of public interest (no market interest)
- Practicalities: *availability on-line licences & catalogues of data resources*; *replying times*: in line with time for accessing documents and *format*: availability in all preexisting formats

There is no formal decision taken yet on the draft Directive to re-use public sector information.

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Use of Public Sector Information

I will now come back to another action line formulated under the eEurope action plan, which the one indicated under number 11: digital content for global networks.

The main target formulated under that action line was to launch a programme that stimulates the development of European digital content.

This target was realised by the end of the year 2000 with the adoption of the so-called eContent programme.

The context and background of digital content is illustrated by the two following strands, a political and an economic strand.

As I already explained in the beginning, the digital content action line of the eEurope action plan has the overall objective to stimulate the use of the Internet: without digital content there is no reason to use the Internet.

At the Lisbon European Council in March 2000, the political leaders recognised the importance of digital content also by stating that «content industries create added value by exploiting and networking European cultural diversity».

The economic importance of content is shown by the figures on the right side of the slide: the European Information Technology Observatory, EITO, estimated in 2000 the size of the overall content sector at 412 billion Euro, or 5% of the European Gross Domestic Product.

Content production has given rise to rapid job creation in recent years and can continue to do so. If obstacles to growth are removed, the digital media industries could grow at 20% per year, which would mean the creation of up to 1 million new jobs by 2005. (*Digital Media Alliance, Recommendation for Growth, 1998.*)

Rich content base based on Europe's long history:

- Long publishing tradition since Gutenberg invented the printing technique in the 15th century
- World ranking players like Reed Elvevier, Vivendi, Bertelsman

• Assets in linguistic and cultural customisation: speak different languages, aware of cultural differences

eContent ios a market oriented programme aimed at supporting the production, use and distribution of European digital content on the global networks and promoting the linguistic in the Information Society.

Some key data:

- The programme last for 4 years (Jan 2001 - Jan 2005)
- Total budget: 100 Me
- It has three action lines of which the first is of particular interest to us, namely:
 - Improving access to and expanding use of public sector information

With regard to this first action line focusing on public sector information, the eContent programme is looking for:

• projects that concretely showcase the re-use of public sector information.

• Projects that show the European scope of public sector information, meaning the use of that information across borders.

• And a portfolio of projects covering multiple sectors from legal and administrative data, via land and geographical information to cultural and historic information.

The action line is, furthermore, looking to:

- establish common meta-data in the field of public sector information,
 - to set up so-called «data sniffer» tools, which help to identify what public sector information assets exist across Europe and how to access them;

- and to have some pilot examples on European digital data collections.

The overall objective is to achieve structural effects on the information market through a bigger use of public sector information.

The types of public sector information addressed by the action line are very broad as you can see.

Geographical information, including land and property, environmental data, and meteo and oceanographic data are specifically mentioned in the working programme.

A good example of a project in the field of land information running under the eContent programme is the EULIS, project, which stands for European Land Information System.

The project is set up by a consortium of 7 national land registries from NL, SE, FIN, NO, England and Wales, Scotland and Lithuania and also includes the Austrian Ministry of Justice and a Swedish technical university.

The project will run for two and a half years and total costs are estimated at two and a half million e, of which 50% is being funded by the eContent programme.

The EULIS project is based on the need to have easy access to reliable information on land real property across borders in order to carry out international transactions on the real property financial market.

Therefore, the overall objective of the project is to create an electronic European Land Information Service to meet that need and giving access to information about, for example, ownership, property values, and encumbrances.

The aims of the EULI projec are, therefore, to Propose how such a system can be designed

- What obstacles might occur
- Show the functionality through a demonstrator
- Establish a long-term solution and investigate the long-term effects on the market

This includes the several issues to be addressed, namely:

- Current legislation on real property transactions
- Basic access principles regarding privacy of land information

• Further investigation of user needs for the service

• Security arrangements and payment methods, and the Impact of the service on European real estate markets.

So, to come back to the action line structure and to shortly summarise:

- the basis for the public sector information action line is formed by the policy actions, such as the eGovernment actions I explained earlier.

• The necessary infrastructural aspect is addressed by projects concerning meta-data and data sniffer tools, and

• on top of that the action line will stimulate concrete examples of projects based on public sector information, including public private partnerships and digital data collections.

If you are interested and have good ideas in the field of land information, you are invited to submit your project at the third call, which will be published in December of this year, or, depending on the type of project, under the continuous submission scheme.

More detailed information can be found on the eContent website, of which I will give the address at the end of the presentation.

To conclude with the eEurope initiative a small word on its near future.

At the European Council in Barcelona two months ago, the heads of state and government recognised the need to continue European actions and co-ordination to stimulate the development of the Information Society.

Therefore, they asked the Commission to draw up a new eEurope Action Plan until the end of 2005 with a focus on digital public services.

GALILEO. European Satellite programme

Let me finally come to the last point on the agenda, which is the GALILEO satellite positioning system.

A global navigation satellite system is a technique that is currently already used to determine the position of an object in the fields of transport, recreation, mobile phones, etc. You all know the American GPS system. The position of an object can only be determined if at least 4 satellite signals have been received.

GALILEO will be the European navigation satellite system which is designed for civil purposes and will make it possible to determine the *exact* position of an object in space and time at any given moment.

It is based on a constellation of 30 satellites in orbit, which cover the entire surface of the earth and a network of ground control stations.

Each satellite is equipped with an atomic clock providing extremely precise time measurements and making it possible to determine precisely the location of any object.

The political and strategic objective of GALILEO is to allow the European Union to have control of a satellite system that can offer huge advantages in many sectors of the economy.

GALILEO will make it possible to develop a whole new generation of services, such as automated vehicle guidance systems to reduce traffic jams and cut the number of accidents, oil prospecting, management of scarce resources like water, financial transactions and safety of persons and property.

GALILEO is a joint initiative of the European Community and the European Space Agency, ESA, where the Commission is assuming political responsibility and ESA is leading the project development.

On 26 March of this year, the EU Transport Council agreed on the release of the remaining 450 € necessary to fund the development phase and on the establishment of a management in the form of a joint undertaking between the Community and ESA (*Total = 1.1 billion €, 550 M € EC of which 100 M € already released and 550 M € ESA.*).

The development phase should run until 2005, followed by a deployment phase in 2006-2007. GALILEO should be completely operational by 2008.

Currently, the two existing satellite systems are already used for cadastral surveying in different countries. These are the American Global Positioning System and the Russian GLONASS system, which were both designed for military purposes at the time of the Cold War.

Techniques using at least two receivers allow to reach an accuracy of data of up to one centimetre but there are two main limitations of the existing systems:

Firstly, the coverage is not always guaranteed, meaning the availability of at least four satellites to determine the position of an object, and Secondly the integrity of the data is not guaranteed, because these systems are not capable to send an alarm when bad data are transmitted.

The new GALILEO system will bring considerable improvement, which will benefit cadastral activities.

First of all GALILEO offers an increased number of satellites for the localisation of an object, which will:

- facilitate the data acquisition in difficult areas, such as dense urban centres, canyons or mountain, and

- improve the efficiency of the data acquisition process, notably in terms of speed.

Secondly, GALILEO will improve the accuracy and integrity of the data giving:

- better quality of the acquired data up to milimetres, and
- improve the robustness of the database by avoiding to have wrong localisation information.

Shortly, GALILEO will be an ideal complement of geographic information systems in general and to the cadastral database in particular. ■

Citizen's use of the cadastral information: Experiences among the Member States

Utilisation de l'information cadastrale par les citoyens

PIERRE JAILLARD

Direction Générale des Impôts. France

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Les données cartographiques

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