E-government
Experiences at local and national level
Transforming Government to build trust and quality

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In 1999 Belgium gave the start to a major government reform called “Copernicus.” Its goal was to reorganise the Belgian public sector in such a way that it could build trust and quality again towards its citizen, companies and amongst civil servants. A matrix structure of all Federal Public Services (former Ministries) was suggested with 4 horizontal cross Ministries. One of these is Fedict (Federal Public Service for Information and Communication Technology).

Fedict was established in 2001 and became operational in 2002. We have been serving our customers for some six years. Our services comprise three core tasks:

- Developing e-Government.
- Developing an e-Society and
- Promoting Belgium as an ICT-knowledge region.

E-government

Government is increasingly being handed the role of service provider to its three target groups: private citizens, companies and the civil service. To improve these services, information and communication technologies (ICT) and e-Government in particular are indispensable. One of Fedict’s key responsibilities, as specified in the Royal Decree of 11 May 2001, is therefore ‘the development shared strategy for e-Government, and monitoring compliance therewith’.

Customer satisfaction is key here. Customers are looking for a solution to their problems; they are not interested in the complexity of the machinery of government or how the different government departments interact. As a federal country this is even more true. They simply want to find a solution to their problem through a single contact and without too many administrative formalities.

With this in mind Fedict has worked out an e-Government strategy that aspires to one virtual government for all customers, with respect for the customer’s privacy as well as the individual character and authority of each government department in question.

This virtual government needs to meet a number of basic requirements:

- Information about the customer needs to be stored in ‘authentic sources’. Before, every government department collected the data it needed and managed it in its own database. The result was that private citizens and companies often needed to submit the same information many times. With the system of ‘authentic sources’ all government departments manage their own specific data and exchange any missing data. In other words, every responsible department needs to make sure the ‘authentic sources’ it manages are correct, complete and accurate.
- Because the ‘authentic sources’ can be consulted by any authorised department, these departments need to be connected by a powerful, secure network.
- Government departments need to be able to request and exchange information via the network in a structured way.
• There needs to be one single access where the information can be effectively viewed and used via different applications.
• Good security of access and user management of the system is needed based on the federal token and electronic identity card (eID).
• The applications must be in accordance with current laws and regulations.
• Users need to have a say in the functionality of the proposed services to ensure they meet their needs as much as possible.

Quality, availability, integrity, confidentiality and safety of information about private citizens and companies are key elements in the strategy. To meet these requirements, Fedict is developing and supporting a series of basic services or ‘building blocks’.

This allows the different government departments to start up e-Government applications more quickly, effectively and efficiently and thus improve the quality of their services. These government departments are the functional owners of their e-Government applications. They can ask Fedict for support at any time.

The computer network FedMAN guarantees the efficient exchange of information between government departments.

In 2006 that network was brought right up to date: FedMAN II now provides an even faster and safer link with practically all the e-Government applications. So FedMAN II has taken e-Government into a new phase in Belgium.

Fedict’s main ‘building blocks’ have been listed under ‘Projects and plans’.

**E-society**

For e-Government to fully develop, users need to find their way on the Internet quickly and easily. That is already the case for most companies but not all private citizens are as familiar with the Internet. Internet penetration is lower in Belgium than in the neighbour countries: 57%, compared to 80% in the Netherlands and 60% in Luxembourg. This is why Fedict is working tirelessly to encourage as many people as possible to use new media and the Internet through a number of e-Society projects.

These e-Society projects aim to:
• Provide information about the possibilities of the Internet and new media.
• Improve access to the Internet and new media through incentives.
• Strengthen the feeling of user security, more specifically through preventive measures.
• Increase the number of effective (government and other) web applications.

Specific projects include:
• The ‘Internet for everyone’ label for user-friendly and efficient e-Society applications.
• The ‘PC phobia’ campaign to overcome PC and Internet fear.
• The launch of safe chatrooms for minors.
• The ‘Card readers for twelve-year-olds’ project, which promotes the use of the electronic identity card and card reader.
• The adaptation of the federal portal and other government websites to the Any Surfer label to meet the needs of the blind and poor-sighted.
• The “Internet for everyone” package (IVI package), which was a concrete government measure to increase Internet penetration in people’s home.
These projects and campaigns are explained in more detail in the chapter on ‘Projects and plans’.

**Promoting Belgium as an ICT-knowledge region**

The e-Government and e-Society projects mean that Belgium is a pioneer in Europe and beyond. Many countries, international institutions and companies have shown an interest in Fedict's strategy and achievements.

This is a perfect opportunity for Fedict to put its proven competences and acquired expertise in the spotlight and to profile Belgium abroad as an ICT-knowledge region, not only to governments but also its various private partners.

Fedict's intention is also to convince international companies to come to Belgium to develop their competences here.

This interaction aims to encourage the knowledge based economy in Belgium. This has several advantages:

- Development of a competence centre results in more jobs.
- IT companies can use the Belgian experience and references to secure deals abroad.
- The development of Belgium as a competence centre can only have a positive effect on the economy.

**Mission**

Fedict’s aim is to develop and monitor a shared e-Government strategy. We do this by developing a solid basic infrastructure, additional services and support projects.

In addition we encourage and oversee the policy to achieve this strategy, assist federal government departments in its implementation and work with other authorities.

**Objectives**

To put this mission into practice Fedict’s Executive Committee has defined six strategic objectives:

1. Fedict wants to define and support a shared e-Government strategy that is recognised by the federal government.
2. Fedict wants to bring about synergies in the field of e-Government and ICT in the federal government's departments.
3. Fedict wants to create and encourage an ICT and e-Government-based mentality and culture.
4. Fedict wants to define and support a shared information security strategy that is recognised by the federal government.
5. Fedict wants to be recognised as a competence and expertise centre for e-Government and ICT.
6. To achieve these objectives Fedict wants to be effective and cost-efficient.
Customers

With its chosen approach Fedict reaches customers in three different categories: government departments, companies and private citizens. Whoever you are, in some way or another you are a customer of Fedict.

Government

Government departments are both customers and partners of Fedict. Various projects, such as the e-Communities platform, the FedMAN federal network and the Authentication access management system (FAS) have been developed for civil servants in federal government and in the regions, communities, provinces and municipalities.

It also allows them to reach foreign governments, directly or via organisations such as the EU or the OECD. But government departments are also partners. Fedict helps them to improve services to their end customers.

Business

Many e-Government services target companies. They make starting up, modifying and the possible winding-up of a company easier and also simplify complex procedures in general.

Private Citizens

Private Citizens are both direct and indirect customers of Fedict. Via the e-Government applications that Fedict creates, private citizens are indirectly helped by Fedict.

But certain basic e-Government services (such as the portal site and the eID) are directly aimed at private citizens, as are the e-Society campaigns. The aim is to convince them of the possibilities of the government's ICT applications and of new media in general. Each one of these three target groups has specific needs. Through its service offer Fedict endeavours to meet the needs of every target group as much as possible.

Projects and Plans

Over the past six years Fedict has created an impressive number of products and services. In this chapter we describe the main accomplishments and shed light – where possible – on future developments.

E-government: basic services, or ‘building blocks’

Fedict's e-Government strategy is supported by a number of basic services, or elementary ‘building blocks’.
Authentic sources

‘Authentic sources’ are an important concept of e-Government. It entails the different federal government departments that gather information from private citizens, companies and civil servants, storing and managing it in their own databases. This database or ‘authentic source’ can be consulted by other FPS that need the information.

It means that the customer in question, be it a company or a private person, only needs to submit the information once. This simplification is one of the basic principles of Fedict’s e-Government strategy.

Fedict ensures that the necessary ‘authentic sources’ are operational and accessible and that the exchange of information between the different departments goes smoothly. This is the foundation of e-Government: conceiving a fundamentally new and integrated way of working, including the rethinking of work processes, procedures, structures and laws.

In the implementation of e-Government applications 80% of the work is behind the scenes and is more process- than ICT related.

Essential for an ‘authentic source’ is that the responsible department is able to guarantee the accuracy, completeness and authenticity of the data so that the other government departments can be sure to have correct, reliable and recent information. Furthermore, an authentic source can only be accessible to authorised people and organisations. In this way privacy and the confidentiality of the data can be guaranteed.

Several ‘authentic sources’ are operational at the moment. The FPS for the Interior manages the National register, which contains the basic details of all Belgian nationals registered with a local authority or embassy. The Crossroads Bank for Social security (CBSS) contains the Bisregister with the basic details of all people in Belgium without Belgian nationality who are registered with the social security services. The Crossroads Bank for Enterprises (CBE) is in the hands of the FPS for the Economy, SMEs, Middle Classes and Energy and contains the basic details of all Belgian enterprises. And finally there is the Central Balance Sheet Office of the National Bank of Belgium, which does not fall under the authority of the federal government but is a very important legal ‘authentic source’.

An ‘authentic source’ for geographic data will be added in the future. This will be compiled in co-operation with the land registry office, the National Geographic Institute and the three regions. An ‘authentic source’ with details of, among others, notaries, medical doctors and architects is also being compiled.

The FedMAN federal network

To exchange this information electronically, the federal government departments need to be connected. For this purpose Fedict has built the FedMAN high-speed network (Federal Metropolitan Area Network). The network connects all FPS in Brussels. Today, 80,000 civil servants have access to FedMAN via 24 access points. For an expansion to government departments outside Brussels the FedWAN concept (Federal Wide Area Network) is currently being examined.
It is intended to directly connect the bigger Belgian cities with FedWAN. FedMAN works at a speed of 1 Gigabit per second. The guaranteed availability (more than 99.5%) is possible because the network has been made entirely redundantly.

The Fed-MAN network is used for:
- The structured exchange of data.
- Sending e-mail messages between the different FPS.
- Consulting the websites and web services of the FPS.
- Consulting the federal FedDS ‘White Pages’ (Federal Directory Services): the FedDS is used to look up contact details of civil servants.
- Sending large files via FTP (File Transfer Protocol).

FedMAN offers government departments safe, central access to the Testa network (Trans European Services for Telematics between Administrations) of the European Union and to the Internet.

Crucial for a reliable information exchange is the security of FedMAN. The network is protected against viruses, spam (unwanted e-mails) and intruders. Access by civil servants working remotely is also guaranteed secure thanks to SSL VPN. FedMAN is in its second version in the meantime.

FedMAN II, operational since 1 March 2006, has ten times the capacity of the first version and makes additional services, such as Voice over IP (calling via FedMAN) and sharing data centre infrastructure between government departments possible, which benefits availability.

The federal electronic mail service: UME and FSB

Exchanging authentic information via the federal FedMAN network needs to be structured. Fedict has developed the UME (Universal Messaging Engine) for this, a service that simplifies the exchange of information between the federal portal site and the different government applications and between the applications themselves. Every day the UME exchanges more than 100,000 structured messages. The UME is a protocol that allows information to get to the right application safely.

By using open standards such as XML and http(s) data can be exchanged between heterogeneous systems: the UME makes sure the information is converted into the right format. This means the IT infrastructure of the different departments can be different without affecting communication.

To increase ease of use, Fedict has also developed the Digiflow web application. With this application different UME data flows can be connected. Three different certificates can currently be requested: a certificate from the Social Security Office to ensure a company has paid all its contributions, extracts of the balance sheet from the National Bank and a certificate from the Federal Treasury department to see if there are any tax debts.

An important development of the UME is the FSB (Federal Service Bus) which works even more intelligently than the UME. It makes the different computer applications and databases even easier to consult and use.
Federal portal site

Government departments are now connected to each other via FedMAN and are able to exchange UME data from authentic and other sources via the federal mail service. The work behind the scenes – the so-called “back office”, which remains hidden from the user – is almost ready in other words. Now a platform is needed where customers are able to consult the various services (the “front office”).

This is why Fedict has built the www.belgium.be portal site. It brings together all the information and services of the federal government.

The site has been constructed intuitively from the user’s point of view. This means all customers can quickly and easily find their way around. The site is also accessible to poor-sighted people and was one of the first government sites to be awarded the BlindSurfer label.

The federal portal site is made up of a static and a dynamic part. The static part contains information of all FPS. The content of this part is managed by the ‘COMMnet Kern Portal’, which represents all FPS.

The dynamic part contains a wide range of applications and services for civil servants (budget reporting, requesting certificates, …), private citizens (electronic tax return, elections site, …) and companies (modifying information in the Crossroads Bank for Enterprises, Dimona, income tax at source, …). Some applications were developed by Fedict for, and in co-operation with, other FPS which manage the service after development. The applications are constructed as much as possible using reusable components so that when we develop a new application we do not have to start from scratch again.

Work is currently underway on a new federal portal site, the underlying architecture of which will be decentralised. The applications are technically disconnected from the portal site to simplify maintenance and management. Also, more information is shared with the existing government department websites which means this information does not have to be provided separately again by the different departments.

For the end user the site offers higher usage comfort because he will get better information more quickly. The convenience and the user-friendliness of the portal site are essential of course.

User and access right management

Privacy laws mean that access to information and services is restricted. The identity and access rights of users are strictly monitored on the federal portal site.

There are four levels of access security:
- **Level 1**: corresponds with public access. No password required.
- **Level 2**: a password is required for some services.
- **Level 3**: a password and a token are required for some services. A token is a card with 24 identification codes.
• Every time a service is accessed one of the identification codes is requested. There are tokens for private citizens and tokens for civil servants. Users can apply for their token via the federal portal site.

• Level 4: some services are only accessible with an eID or electronic identity card.

Fedict is responsible for management of the tokens and is an important player in the development of the eID. It also makes software available to integrate these security tools in applications that want to use it.

Fedict is currently developing a system of authentication in which it is not the identity of the user that has priority, but his capacity, such as his position as a notary, medical doctor or bailiff.

The mandate management system, whereby a third person (e.g. an accountant or a notary) can act on behalf of a private citizen or a company is also being expanded. And finally, Fedict is working on a shared authorization concept whereby a user is able to access the services of various FPS simultaneously. This can be interesting in processes where several FPS are involved.

The electronic identity card (eID)

The highest level of access security on the federal portal site uses the eID or electronic identity card. This means the eID is an essential building block in Fedict's e-Government strategy. The eID contains a chip that allows the cardholder’s identity details to be read with a card reader and the necessary software.

The eID’s functions are threefold:

• Efficient consultation and transfer of identity details: by inserting the card in the card reader the party consulting the details has faster and easier access to them. And they are guaranteed to be correct.

• Authentication: for every application or website for which a user needs to prove his or her identity, the eID is a universal way to do so in a secure way. Authentication via the eID is PIN code protected and therefore cannot be used by just anyone, not even when the card is lost.

• Electronic signature: the eID enables the cardholder to put a legally valid signature under electronic documents. As with a written signature it gives the document authenticity (it is actually the cardholder who signed it), integrity (nothing has been changed in the document since the cardholder signed it) and irrefutability (the cardholder cannot deny that he or she was the person who signed the document).

The number of possible applications for the eID is virtually endless. Nowadays it is used in applications used by the federal government and other authorities: to apply for and sometimes sign all kinds of electronic declarations, for identification in the case of electronic registrations and applications, as a library pass and entry to a recycling park. Thousands of other applications are imaginable, also for private purposes.

It is an important responsibility of Fedict to stimulate the market for this and to promote applications that integrate the eID.
On 31 December 2006, 4 million electronic identity cards had been issued and were operational in Belgium. And every day about 10,000 more cards are issued.

By 2009, all Belgians will have an eID card (8 million cards). The eID is more and more used today, with hundreds of new applications developed both in the private and public sector. In a bit more than 2 years, already about 12% of the internet users have a card reader. Furthermore, Fedict is working on initiatives to encourage use of the eID: the eID label for card readers, documentation for developers to correctly integrate the eID, the availability of free read software for the eID, the distribution of card readers, etc.

For more information about the electronic identity card please go to: www.eid.belgium.be.

Information security management

A major point in Fedict’s strategy is the security of information. Naturally the information systems of the federal government need to be properly protected to guarantee reliability and stability. But because e-Government also opens up these systems to the outside world, even greater security efforts are necessary: the risk of confidentiality and privacy violation has increased greatly.

Fedict has worked out a global information security strategy for the whole federal government. Creation of a consultation platform was given priority and Fedict acts as its secretariat. It has also provided a forum for those who are responsible for information security in the different FPS. The aim of the forum is to harmonise the management of information security in the different federal government departments. Fedict gets the various FPS to conduct risk analyses and use this information to launch security procedures. Fedict will assist if necessary by providing methodology, advice, training and support in the implementation of safety measures. Another aspect of Fedict’s security programme is service continuity.

All components of the e-Government architecture (networks, data centres, ...) are redundant. Fedict also advises the FPS when drawing up a ‘disaster recovery plan’ to get the service operational quickly again in the event of a problem.

Service catalogue

E-government applications not only have to function well; they also need to be and remain usable. This is why Fedict has paid extra attention to user support these last years. It does so by providing manuals, giving training courses and providing a service desk. The quality level of the support and the availability of the different services are agreed and guaranteed – sometimes in joint consultation – by this service desk. The service desk also guarantees provision and support for the services offered, both in terms of IT and organisation.

All offered services are clearly described in the service catalogue. The service catalogue offers the FPS and their end users an overview of the different Fedict services. The catalogue is a handy tool for the user to start up an operational service or an expertise application for his organisation.
E-government applications

Besides developing the basic structure for solid e-Government, Fedict has also created many e-Government applications over the past six years. Most were developed in co-operation with and for other FPS, which become the owners of the applications after a formal transfer. Most applications are available via the federal portal site and are aimed at Fedict’s three different target groups: private citizens, companies and government departments.

Tax-on-web

Tax-on-web is one of the best known examples of e-Government. Private persons and self-employed persons use it to submit their personal income tax online. Authorised persons, such as accountants, are able to submit declarations for third parties. An upgraded version is currently being developed to make submitting tax returns even more efficient.

Fedict created Tax-on-web for the Belgian Federal Treasury, which has been responsible for it since 2005.

Federal election site

In 2003 the federal election site allowed members of the public to follow all the election results online throughout election night. Every ten minutes the list votes, name votes and statistics were updated. To cope with the expected, very intensive use, Fedict designed a special architecture with different providers. In 2004, the same service was offered for the regional and European elections. Together with the FPS for the Interior Fedict is currently preparing to offer a similar service for the 2007 parliamentary elections. A study carried out in co-operation with the FPS for the Interior is currently on the table to look into voting via the Internet for these elections.

Business applications

For insurance brokers a service has been launched that enables them to apply electronically to the DIV (Vehicle Registration Authority) for new number plates for their clients. To prepare their mobility plan, companies need to provide a whole range of data to the FPS for Mobility and Transport about their employees’ commuting patterns. Fedict has developed an online tool for this and linked it to the CBE (Crossroads Bank for Enterprises) and the CBSS (Crossroads Bank for Social security). A great deal of information no longer needs to be requested thanks to this tool.

E-procurement is the automation of open tenders. Several related projects are currently in the pipeline. For instance, JEPP (Joint Electronic Public Procurement) is a system that allows potential tenderers to electronically view and classify all calls for tender by federal and other authorities (e.g. by sector). JEPP is synchronised with the Bulletin of Tenders, the appendix to the Belgian official gazette, which announces all government tenders.
An e-mail service is also connected to JEPP which informs tenderers when tenders are invited for their sector.

A web-based application of Fedict’s (a ‘web interface’) allows organisations and companies to add or modify corporate information in the Crossroads Bank for Enterprises (CBE). Certain organisations even have direct access to the CBE from their own web applications.

**Ecommunities**

Ecommunities is a web-based platform that simplifies co-operation between civil servants. Fedict developed eCommunities for the FPS for Personnel and Organisation and is responsible for its technical management. Several user groups with the same profile, such as HR managers and ICT managers, or that co-operate on the same project share their information in a secure environment. eCommunities has about 4,000 users today.

**Eurtransbel**

Eurtransbel is an application that enables monitoring of the process by which European directives are transposed into Belgian law. The application was developed for and with the FPS for Foreign Affairs. The regions and communities also have access to Eurtransbel and are able to link their own, similar applications.

**E-payment**

FPS that offer services for which a charge is made are able to use Fedict’s e-Payment solution. Members of the public and companies can choose to pay by credit card or via a link with the PC banking system of their bank. The main Belgian banks have all signed up. Two other payment methods are currently being examined: by debit card (Bancontact/Mister Cash) and GSM.

**Service desk**

Fedict has developed a general support platform (a ‘service desk’). It is currently used by the FPS for Mobility and Transport for ICT support to end users and by Fedict itself to support users of services in the service catalogue. The service desk is an important step in the evolution from developing products to offering services.

**E-society**

Through different initiatives Fedict tries to encourage use of the Internet in Belgium and help Internet users to surf and chat safely.
Internet for all

The ‘Internet for all’ label is granted by the government to Internet campaigns and/or applications that contribute to a widespread acceptance of the Internet and computers. The aim of the label is to dispel fears regarding the Internet.

PC phobia

PC phobia is an original campaign in which Ginette explains via a TV commercial, a website (www.peeceefobie.be), a booklet and a teaching package how she overcame her fear of PCs and the Internet. In seven simple steps and in simple terms she explains how users can protect their computer against viruses, spam (unwanted e-mail), intruders via the Internet, etc.

BlindSurfer label

The government makes sure that as many of its websites as possible are easily accessible to the blind and poor-sighted. The federal portal site that Fedict has developed was one of the first government sites to be awarded the BlindSurfer label. This label is an initiative of ‘Blindenzorg Licht en Liefde’ and the ‘OEuvre Nationale des Aveugles’ (the Belgian Blind League).

Safer Chat

Safer Chat (www.saferchat.be) is a series of chat rooms where youngsters between 12 and 15 can safely chat (real-time communication via the Internet). The age of the chatter is checked using the eID. Adults with possible evil intentions can be barred from the chat room. Safer Chat was developed in joint consultation with the FCCU (Federal Computer Crime Unit) and Child Focus.

Free eID card readers

To encourage use of the eID on the Internet, Fedict gave away 100,000 eID card readers to twelve-year-olds when they picked up their first identity card. Thousands of new families can now surf and chat using their eID. This campaign is also indirectly beneficial for use of the eID on the Internet: the large order has meant the market price of the card reader has dropped by about 40% which means the card reader is affordable to everyone now.

The Internet for all’package

The ‘Internet for all’ package (IVI package) was a concrete government measure to increase Internet penetration in people’s homes. A computer with an Internet connection was offered at an affordable price to anyone not yet connected to the Internet at home.
The campaign specifically targeted these people because they run the risk of losing out in the current information society.

**Closing Remarks**

Although relatively young, Fedict has managed to achieve very important steps on the way towards building trust and quality. It has concentrated on the back-office structure in a first place in order to make sure that the foundations are good and future-proof.

I think we can say that this is the case. Proof of it is that all other Federal Public Services use it and are happy with the quality and security levels. Now is the time to shift our focus towards the end-customer: the citizen, the company and the civil servant.

A recent survey “Fed-e-View citizen” shows us that we are on the right track. Internet penetration is going up; more and more internet applications are being launched and they become more and more interactive or even automated and pro-active. The future is bright...
Modern time changes

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To talk about the changes caused by new technologies, we first need to know and list everything the technology covers. It is in fact commonly admitted that the new technologies start with IT. IT has existed for fifty years now and it’s still a “new technology”.

First, let us draw up the inventory of the means that are commonly used by citizens and that show affinity with the new technologies. For every technology, we will then find out what part of the population could use this technology and more importantly what part could be excluded from it.

We will start with IT, the oldest of the new technologies, fifty years old and to this day a sacred monster that frightens part of the population – or so we would like to think. When IT was created, only a circle of initiated used it. Then the microcomputers or PCs became popular and made informatics a means that is used massively all over the world.

Internet, coming from the universities, helped the PC make our planet small enough to fit into our pocket. The web, as the experts call it, helps anyone conquer distance and time. What took several years before now only takes a few seconds.

In the last few years, mobile phones have been developing in Europe and in the world. In the beginning, these small devices were only used to telephone, whereas nowadays they do a lot more. For a few euros, any citizen can buy a machine to send messages to a correspondent at a low price. The SMS has reduced the remaining barrier to technology. Soon text was not enough anymore and images and sound were added to it: the MMS was born. If we pass over the technologies that have made the mobile phone into a gadget that is used by everyone, the fact still remains that nowadays, we can go online with our mobile phone. With Internet on our mobiles, we have once and for all closed the gap that might have existed between informatics and the world of over-consumption.

How have the administrations managed information’s race for power?

It has to be said that far from letting themselves fall behind, most of the time the administrations have developed technologies to deal with everything the citizens might ask them. A few examples:

As pure informatics goes, we could name the electronic ballot in the Brussels Capital Region as a successful example of computerisation in a defined place with a technology that’s already quite dated, as the computerised ballot was first introduced in Brussels in 1994. It proved successful and as a result every town of the agglomeration was equipped with a computerised ballot system. Today, a new study will determine which ballot system will be used in the future.
As regards Internet, no town could possibly do without a website these days, which provides a link between the administration and its citizens. The town can put up many messages on the site and the citizens can read those without having to get out of their armchair. There are very few citizens nowadays that go to the administration without having checked the opening hours first. Over the past few years, new services are at the disposal of the citizens. In certain towns they can ask for documents, through a secure system that uses a technology called “Irisbox”. The citizens identify themselves through their identity card, and once they have entered the site, they see a list of documents they can ask for. In certain cases, if they have to pay for the document, they can do that in advance and receive the document in their letterbox.

To date, no application especially for WAP has been developed in the Brussels Capital Region. The MMS technology has not been further developed, as it is reserved for leisure time. Then there's the SMS technology, which has seen an interesting development within the STIB (Brussels Inter-municipal Transport Society). Those who had an Internet connection have been able to find information about their public transport route for months, but no-one could ever know how long they would have to wait at the station or bus stop. Now they can, simply by sending an SMS.

We regularly hear about the digital divide that excludes part of the population from using the new technologies. Some recent facts which have been topics of actuality indicate that youth who have internet access – who are on the “right” side of the digital divide - show a tendency to excesses in the opposite direction. Although some elderly people are unable to perform some manipulations, the majority of them uses recent technology on a regular basis. Most of the people who do not suffer major mobility restrictions regularly use a bank terminal, which provides a first contact with rampant technology.

How should we imagine the future of the digital divide?

At the one hand, part of the population without internet access has not the knowledge required to use a PC. All efforts should be deployed to give them the opportunity to do so, by whatever means it takes. Any public initiative thereto will help them to cross the digital divide and get in touch with the world of technology.

At the other hand, a growing number of self-educated youth has an advanced knowledge which enables them to overcome numerous system protections. Thus, the digital divide might well invert for certain public administrations.

After having drawn a picture of the accomplishments, it is necessary to temper enthusiasm.

Public administrations face a difficult task. Having developed IT applications somewhat at random, they will need to deploy much effort to refocus, to organise and to make applications user-friendly.

Indeed, user-friendliness differs significantly from one website to another. Every beginning web surfer or any person reluctant to make long and sometimes fruitless searches, will find it difficult to surf from one municipal website to another or to navigate between sites of different public institutions.
Websites show no uniformity whatsoever. When looking for road information on the website of municipality A, we may find it under the third heading at left, whereas on the site of municipality B is necessary to run through the entire tree structure to find the information requested. Some sites do not use full screen width. In the case of long texts, this means the visitor has to repeatedly use the mouse and elevator to read the whole text.

**Some uniformisation of websites seems necessary**

Today all websites provide the information which the administrations think citizens want, but no survey has been carried out to take stock of the citizens’ needs. Authorities have always followed a « TOP-DOWN » approach. Now they should shift focus to the needs of their customers/citizens.

It is not always easy for public administrations to take a customer-oriented approach, since in numerous cases a number of obstacles occur which are beyond their will.

In the first place, we think of the race for websites, intended to create a modern and future-oriented image of the administration. However, apart from the pages with information for citizens, there is not much more on offer. Some administrations do not even have sufficient staff to provide for regular updates of their web pages, which are sometimes dated and often obsolete.

This is unacceptable to the customer-citizen. The latter is not interested to know that an event will take place in 2005; he wants to know if the 2007 edition will be held. If we wish to enable the customer-citizen one day to obtain forms and documents from his municipal administration in a fast and secure way, 24 hours a day and 7 days a week, the website will have to be backed up with reliable databases, capable of providing all data requested.

After having spent time on creating a promising website, administrations should now turn their efforts to creating a well-performing, secure, flexible and evolutive back-office. This is the only way for administrations to meet the citizens’ needs.

Nevertheless, a series of obstructions will persist which prevent administrations from fulfilling all of the citizens’ requirements.

Some law acts make it impossible for administrations to give a timely response to the citizen’s requests with the means they have at their disposal. Time limits set by law are often meant to guarantee the individual liberties of citizens, but the latter generally do not care about that when asking for a document. It is within this context that administrative simplification can be pursued. Indeed, new technologies require an adequate legal framework.

Technological progress in Europe will not be possible without a revision of the law framework. In Brussels, as in many places elsewhere, the legal framework and the way of thinking play an important role to induce changes. There remains a final issue to be addressed with regard to technological efforts accomplished at Brussels. It is necessary for the government to realise that IT accomplishments are not like obelisks planted in the ground. Unlike software, stone requires few maintenance.

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IT projects should be aimed at a period ahead of between 10 and 15 years. During this period, four times the initial amount will be invested.

We should not content ourselves with accomplishing things on a one-shot basis. A project on itself cannot have a long-standing effect. If today you create a database accessible by SMS, this means your database should be sufficiently stable and solid to last over time. If for any reason whatsoever you were to switch to change database, it would be necessary to recuperate all systems used to consult it. So the initial expenditure for your application should be extended to cover all maintenance, upgrades and corrections of the software.

With regard to updates, these normally comprise the adaptations of your programme to the new systems that are being implemented.

To conclude, the following points should be stressed:

• The NICT are no longer as new as their name seems to indicate: currently, new platforms, new architectures are gaining the upper hand on our present tools.

• Public services must take a B2C (business to citizen) approach and should not generate self-contained procedures.

• The law framework has to be global (or European) instead of national or local: integration should therefore be both vertical and horizontal.

• The budgetary impact should not be seen as an obstacle: any NICT programme NTIC should reach beyond the mere acquisition to include maintenance and upgrading of the tools and platforms that are being put into place.

Even if this may seem far-fetched today, we should bear in mind that only one European out of two is connected tot the Web, that only three out of five Europeans are in the possession of a mobile phone and finally that between fifteen and twenty percent of the population currently experiences difficulties reading and writing. The technological divide takes several forms and thus requires several responses.
Electronic voting has come to Europe

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E-voting systems are under development all over Europe, and - if properly implemented - have the capacity to ease and broaden participation in democratic processes. We all know that e-Democracy is more than just making democracy electronic, and that e-Voting, as a mechanistic process, does not automatically lead to more direct participation or increased turnout. The importance of providing the technical means and the legal framework to enable electronic voting is beyond question. However, the real challenge is to mobilize citizens and increase voter enthusiasm in order to encourage wider democratic participation and use of these new technologies.

Like many European governments, the French Government is strongly committed to the development and deployment of e-Enabled voting systems. This commitment is also specified in its specific e-Government strategy and action plan launched in April 2004. Covering the years 2004 -2007, this plan, called “ADELE” (ADministration ELEcTronique), clearly advocates electronic voting: “… propositions concerning the introduction of these kinds of [electronic voting] procedures in France will be formulated. Professional elections and polls (referendum, public opinion polls) are potentially concerned by electronic vote or online consultation – either by distance voting or in polling stations.”

At present, three types of e-Voting technologies are being deployed in France:

Voting Machines

The use of voting machines for legally binding political elections is included in the French electoral law since 1969. Yet, no more than in March 2004, the French Government passed a decree authorising 33 municipalities to deploy such machines. The French Government currently provides a subsidy of 800 per machine purchased or rented by local authorities. At present, three different voting machines are accepted by the French Ministry of Interior to be used for legally binding elections. These machines are compliant with strict technical regulations, consisting of 114 requirements regarding ergonomics, reliability, and security.

The first city to use voting machines for legally binding electronic voting was the city of Brest, during its regional elections in March 2004. It seems, however, that the use of these e-Voting facilities did not have a significant impact on voter participation. The turnout in Brest increased by 3% compared to the regional elections in 1998 - but this increase corresponds to an increased turnout throughout the entire country.

Another 18 communities used voting machines for the European elections in June 2004, and about 50 communities employed voting machines for the referendum on the European Constitution in May 2005.

For the first time in a French presidential election, electronic voting has been used in some voting districts, among those the districts of the City of Issy-les-Moulineaux, during
the French presidential elections in April 2007. Voting machines have been employed in 82 localities, and up to 1.5 million of the 43 million eligible French voters used electronic to elect their president for the first time. The communities that employed voting machines for the presidential elections will also use voting machines for the French legislative elections on 10 and 17 June 2007.

Internet Voting

Internet voting was tested in France for the first time during the election of the Upper Council of French Expatriates (Conseil Supérieur des Français de l’Etranger – CSFE) in March 2003.

The e-Voting experiment covered the two electoral US districts of Washington and San Francisco, where more than 50,000 French expatriates had the opportunity to vote electronically.

Seen as a possible method to counteract decreasing voter participation, the introduction of Internet voting capabilities prompted a 2.5% increase in the number of votes cast. From this, it can be implied that remote voting might be an important means to effectively facilitate participation, as it makes it easier for citizens, especially those living abroad, to exercise their democratic rights.

The most recent pilot test of Internet voting in France took place in October 2004, within the context of professional elections in five major Chambers of Commerce. Approximately 340,000 company managers and shopkeepers elected the members of the Chambers of Commerce and Industry (CCI) in Paris, Bordeaux, Grenoble, Nice and Alençon.

The system used for these elections was based on a system called CyberVote, developed within a cooperative European project and adapted by EADS to meet the requirements of the Assembly of the French Chambers of Commerce and Industry. Each voter received a personal user ID and a password, allowing them access to a special voting website where they could cast a legally binding vote. Compared to past elections of the CCI, turnout increased by 3%.

The primary problem that arose during the CCI pilot was that of acquiring the requisite authorization from the National Commission for Personal Information and Freedom (CNIL), the French Data Protection Authority. The CNIL is required by law to inspect and authorize each voting system used - a lengthy process.

The Chambers of Commerce received the authorization only two weeks before the elections, leaving little time to launch effective information and communication campaigns on the e-Voting trial. The next large-scale Internet voting pilot is scheduled for the upcoming elections of the Upper Council of French Expatriates in 2006.

Another stumbling block impeding the widespread use of Internet voting systems also arises from legislative restraints placed on the electoral process. While the French government takes the position that identifying and authenticating voters via user ID and password corresponds to a security level similar to postal voting, French legislation does not allow postal voting for political elections other than elections to the CSFE.
Consequently, Internet voting could be used in elections where postal vote is allowed, professional body elections and referendums, but not for general political elections, until changes occur in the relevant legislation. In those cases, where postal voting is forbidden, Intranet voting solutions could be deployed.

**Intranet Voting**

The e-Voting system currently considered best suited for political elections in France is Intranet voting, via voting kiosks. Intranet voting kiosks are linked to a remote server, located in a safe place (for instance the city hall). The vote is registered at the voting terminal, encrypted, and immediately transferred to the server. Such system, allowing voter identification via smart card, biometric identification solutions (e.g. fingerprint recognition), bar code, and other means, has been developed, under the name ‘e-Poll’, by a European consortium composed of Siemens, France Télécom, Vodafone, and the French and Italian Ministries of the Interior.

E-poll is based on consolidated, proven technology and a PKI security infrastructure, providing full privacy and security on wireless networks. Initially designed for institutional voting, e-Poll runs under the supervision of a public assessor and uses a specific, secure VPN-GPRS communication network. Home voting would be possible without any major modifications.

The e-Poll network is a multi-channel network, based on GPRS technology and wireless LAN, and it works on wired networks without any problems. Voting accessibility is implemented by the use of a European Virtual Ballot Network (EVBN) and a thin Linux voting client without hard disk, based on a browser, in order to get true voting delocalization. The cryptographic protocol includes encryption, authentication, mix-net, and blind signature.

The e-Poll technology has already been successfully tested in 2002 within the framework of simulated elections organized in parallel to political elections taking place in the two French cities of Mérignac and Vandœuvre and in several local tests in Italy. Today, the e-Poll system is mature and ready for large-scale deployment.

The important question to ask is to what extent does e-Poll take into account or positively impact voter participation? As a highly secure system, e-Poll allows citizens to vote securely and in secret from places other than their local polling station.

The e-Poll system is officially confirmed to protect the five core principals of Europe’s electoral heritage (universal, equal, free, secret and direct suffrage) and is compliant to the recommendations of the National Commission for Informatics and Liberty (CNIL) and the Council of Europe. By respecting the code of good practice in electoral matters, e-Poll allows us to envisage a reduction of electoral staff and administrative needs. The ability to disperse voting kiosks in various strategically convenient places maximizes accessibility. Voters could cast a vote in the polling location of their choice: the e-Poll voting system can be installed in public premises, such as schools and municipalities, as well as in non-conventional premises, such as tourist sites (on the beach and at mountain places) and hospitals, or, in the case of cross-boarder voting, in a country other than the one holding the elections.
The case of citizens living abroad is always problematic when dealing with participation in the democratic system. There is often a low voter turnout and, if allowed, the traditional postal vote is not very efficient. Especially in view of the increasing mobility of citizens within the European Union, the dispersal aspect of the e-Poll system becomes more and more important.

The use of e-Poll (or similar systems) also abolishes the need for unity of time of votes. Due to reduced staff and administrative needs, and the fact that the ballots are stored (electronically) in a extremely secured way (which is not the case when storing paper ballots), e-Poll allows the extension of the polling period from one day to two or more days. This means people would have more flexibility in scheduling time to vote, thus creating the best conditions for increased voter turnout.

Another aspect of broadening participation is facilitating access for disadvantaged persons. For disabled people and persons with impairments (including both voters with visual impairments and motor control impairments), e-Poll can enable voting on equal terms with the rest of the voting population.

When designing the e-Poll system, special attention was given to issues related to accessibility and inclusion - both through an easy to use system and a handicapped - accessible voting kiosk, designed by Pininfarina in Turin, Italy. e-Poll enables persons with physical and auditory disabilities to vote without any external assistance. Furthermore, the e-Poll application features a special interface enabling blind and visually impaired persons to vote without help.
The first two legally binding elections employing e-Poll in France have been elections of the university councils of the University of Nantes and the University of Lyon 2 in December, 2004. In these elections, more than 50,000 students were asked to elect representatives in the three statutory bodies of the universities: the Administrative Council, the Science Council, and the Council of Studies and University Life.

Thus, in each university three elections were combined in one, or in other words, the students had to cast three votes in succession during one single election. As the electoral regulations of the universities did not foresee the possibility of casting a vote electronically at that time, a decree on electronic voting had to be issued by the French Ministry of Education, allowing e-Enabled voting at universities for test purposes, under the condition that the election principles were guaranteed.

Both pilot experiments were characterized by a greatly increased strategic value, due to the fact that these kinds of elections are at the same time statutory institutional elections and subject to the procedures and legal framework of French electoral laws governing political elections. As a matter of course, the CNIL examined and approved the e-Poll system, referring to a report security experts had written on the product after a two month trial.

The elections at the University of Nantes offered the opportunity to use e-Poll during very complex elections, due to the fact that in Nantes, in addition to the elections of the three central university councils, the students also elected their representatives in the 26 local councils, one for each of the different faculties. Ultimately, this corresponded to 29 successive votes within one election. Furthermore, the campus of the University of Nantes consists of a collection of remote sites scattered all over the region. This provided a unique opportunity to use e-Poll for remote voting.

The University of Lyon 2 offered the possibility to authenticate the voters using smart cards, a technology that is all ready used in many areas of government and business. Every student of the University of Lyon 2 has his or her personal smart card, which is used to pay for food at the university cafeteria, to access his or her personal work station, and to get official copies of his or her registration, degree, or transcript. Such authentication system provided the perfect environment to showcase the flexibility and adaptability of the e-Poll system to different electoral requirements.

The elections in Nantes took place from 7 to the 9 December 2004. 120 voting stations were dispersed over the university campus (16 sites scattered throughout the region of Nantes). The elections in Lyon were held from the 13 to the 15 of December 2004. 80 voting stations were distributed amongst the 10 sites of the university campus. Both universities extended the polling period from one day to three days in order to broaden participation. Both elections were successfully concluded without any problems, and the results have been accepted without objection by any of the campaigning parties.

The possibility of remote voting was especially appreciated by the students. In the past, the students were obligated to go to one central polling station to vote; by using e-Poll, they could go to any of the many polling stations distributed throughout the university campus. In both universities, the voter turnout in the e-Poll trial elections increased by 3%, as compared to the elections in previous years. A survey carried out after the elections showed that more than 75% of all students were in favour of replacing the traditional voting system with e-Poll.
E-poll also has been successfully tested within the context of local and cross-boarder referendums in Italy and Hungary: On the 13th of March, 2005, the municipality of Specchia, Italy, used the e-Poll system to poll its citizens on three local referendums regarding community issues. This election marked the first time the electronic identity card was used for e-Voting in Italy.

Furthermore, one of the three referendums became the first trans-national referendum to use electronic voting. This trans-national referendum was conducted in Speccia in conjunction with the municipality of Szigetszentmiklos, Hungary, a twin city of Specchia. The citizens of Szigetszentmiklos were able to participate in this election by using the e-Poll system.

e-Poll has also been recently employed during the French Referendum on the European Constitution that occurred the 29 May 2005 in Issy-les-Moulineaux. Two polling stations in Issy-les-Moulineaux, one in the city hall and one in a public school, were equipped with eight e-Poll voting kiosks. About 2,000 voters had the opportunity to participate in this trial, organized in parallel to the legally binding paper based elections – an opportunity that 1,081 of those 2,000 voters took advantage of. The results were available within 2 minutes after closing the polls, and the e-Voting system was praised highly by the voters.

It should be stressed, however, that despite the very positive results and reactions to e-Poll pilot experiments in France, people remain afraid of “black-box” voting and wary of new technology. In order to encourage people to vote, by making voting more worthwhile or comprehension greater, it will be necessary to improve not only the information campaigns about electronic voting, but also the quality of the control mechanisms provided by national electoral laws.

It should not be forgotten that control mechanisms to ensure voter confidence in conventional voting, such as the unity of location and time of the ballot and the direct visual control by voters and candidates, are abolished with the introduction of electronic voting systems. Strict legislation regulating the control of e-Poll-based voting, before, during, and after elections, is therefore required to provide the guarantees needed to compensate for the inherent lack of transparency of the technology and to increase citizen confidence in e-Voting systems.

In the concrete context of France, increasing voter confidence in e-Poll means creating a new body of legislation to oversee and guide the new system. Specifically, systems will have to be assessed for conformity by both the government, in the form of the National Commission for Informatics and Liberty (CNIL), and by independent certifiers.

Moreover, the CNIL must address concerns about the ability to verify the data collected by developing a set of control mechanisms for sealing ballot boxes, monitoring system function, and counting votes, as well as outlining a procedure for a possible system failure. These are but few of the procedures that must be legislated in order for the e-Poll system to reach its true potential. The implementation of an e-Poll-like system is a daunting task, but it is one the French government has promised to accomplish, or at least initiate, by the end of 2008.

NOTES
1 Plan d’action de l’administration électronique 2004-2007
The Integration of new Information and Communication Technologies (ICT) in Spanish Local Government

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Introduction

This report looks at the current situation regarding the application of information and communication technologies in Spain. It examines the basic legal framework, the IT resources available to local Spanish governments (on the basis of the data provided by the Ministry of Public Administrations IRIA Report) and the "Local Government PISTA Project" promoted by the Ministry of Trade, Industry and Tourism and the Spanish Association of Townships and Provinces (FEMP). Finally, an assessment will be provided of local council and town hall web sites in towns with over 75,000 inhabitants (in towns of this size and above all local councils have a web site).

The basic legal framework for the application of ICT in Spanish local Government

The major reforms brought in by the Local Government Modernisation Act 57/2003 (LMMGL) introduced significant innovation in relation to e-Government.

Participation and information are two inseparable notions. If the mechanisms of information are not developed, it is impossible to achieve strong participation in local management. Hence, all genuine participatory politics must begin with total transparency of information.

Legal/formal mechanisms for information have been in place for many years. However, it is interesting to note now, above all, the need to implement and develop new informative mechanisms that take into account new information and communication technologies, as well as in the development of information techniques that are not merely passive, but rather interactive.

First and foremost, citizens have the right to be able to access quickly and easily any information that concerns them directly and which could influence any decision-making processes that affect them individually, by making suggestions, complaints or claims. The formulaic system of written communication and the use of formal resources - which undoubtedly continue to have their place - must be replaced by immediate contact - verbal, telephonic, telematic or electronic - with those in charge of providing local public information, and even with those in charge of the services or activities that affect citizens immediately.

In a fast-paced individualistic society, the immediacy of information and the effective possibility of influencing information and local decision-making processes that affect citizens undoubtedly becomes a key element of “political socialisation”, in so far as it...
boosts citizens’ respect for and identification with local government and its institutions, even stimulating greater political participation owing to the increased credibility of local governments.

The LMMGL is categorical in this respect, and introduces a new article 70 bis, section 3, into Act 7/1985m regarding the Basis and Conditions of Local Government (LRBRL), stating that local entities, and especially town councils, must promote the interactive use of information and communication technologies for three major purposes:

a) To provide information and communicate with residents.
b) To submit documents and carry out administrative procedures.
c) To carry out surveys and, if appropriate, answer queries from members of the public.

The triple dimension of the application of these technologies is reflected and their interactive use is expressly required.

Furthermore, a specific obligation is established, decreeing that secondary local governments (covering provinces and groups of islands) must collaborate with town councils, especially in smaller towns, so that they are effectively able to boost the interactive use of ICT.

Even though the integration of ICT in local government was taking place fairly rapidly, the requirements of the 2003 LMMGL provided an incentive to pick up the pace even more, and especially so that local government web sites could allow interactive use and fulfil the aims defined in the Act.

A few statistics about ICT in Spanish local Government

This section provides an overview of the real situation regarding the use of ICT in Spanish local government, on the basis of the information provided by the Ministry of Public Administrations IRIA Report for 2006. This report covers all local councils for towns with over 500 inhabitants, provincial councils (“Diputaciones”) and island councils (“Consejos insulares” in the Balearic Islands and “Cabildos insulares” in the Canary Islands). The following headings provide a description of ICT expenditure, computing/IT costs, numbers of personal computers, ICT staff, Government on the Net and e-Government.

ICT expenditure

Total expenditure on information and communication technologies in Local Government stood at 768,550,000 in 2005, out of which spending on telecommunications accounted for 159,204,000.

21% of the total expenditure on ICT corresponded to telecommunications and the remaining 79% related to computing and IT expenditure. These figures stand in contrast with the ICT market in Spain, in which telecommunications represent 73% of the sector total and computing/IT represents 33%. In the European Union as a whole, these figures are divided up as follows: 51% on telecommunications and 41% on computers and IT.
It should be pointed out, however, that the expenditure on telecommunications reflected in this report only includes, in general, voice and data transmissions, and excludes investment, which is included as computing/IT expenditure under the heading of material and equipment.

In general, the smaller the town, the greater the percentage of ICT expenditure it allocates to telecommunications; the smallest towns (from 500 to 1000 inhabitants) allocate 63% of their total spending to telecommunications. This reveals that although these costs (basically voice transmission) cannot decrease, expenditure on IT and computing is lower in small towns.

The total ICT expenditure (IT/computers and telecommunications) listed under section 1, 2 and 6 was around 1.72% of the total budget, 12% higher than the figure recorded in 2003. Larger towns (over 100,000 inhabitants) had higher ratios, whereas the corresponding percentages for towns with fewer than 100,000 inhabitants were below average.

As regards expenditure on information technologies per inhabitant, the general mean figure was 13.26 per inhabitant, and this figure increase to 18.79 in towns with more than 500,000 inhabitants. In towns with between 1,000 and 10,000 inhabitants, ICT expenditure per inhabitant is lower, around 10.96.

**IT/Computing Expenditure**

The total IT/computing expenditure for Local Governments in 2006 was 609,346,000, representing an increase of 36% on the year 2003.

Analysis reveals that staffing costs (38%) continued to account for the highest proportion of spending, although there was a slight decrease in comparison to the figure recorded in the IRIA Report for 2004. The percentage of total expenditure allocated to equipment and software was the same as two years before, 19% and 7% respectively, and the percentage relating to services continued to increase, up to 33%.

Looking at these specific headings, there was a significant increase in expenditure on services (48%). The other headings also increased but more moderately: equipment (37%), software (35%) and staff (25%).

The most significant portion of total spending corresponded to towns with over 500,000 inhabitants (19%), which increased their expenditure by 66%. Furthermore, these towns also represented 32% of total expenditure on software in local government.

Analysis of the structural distribution of IT/computing costs for different sized towns also reveals the following significant points:

- Staffing costs still represent the highest proportion, except in provincial councils (*Diputaciones*), island councils (*Consejos y Cabildos Insulares*) and local councils for towns with between 500 and 1000 inhabitants. In the latter case, most of the smaller town councils did not have specific IT staff; therefore expenditure under this heading was zero.
• Just as in the previous report, the proportion of total spending on software was very low: only in towns with over 500,000 inhabitants and between 30,000 and 100,000 inhabitants do these percentages reach 12% and 11%, respectively.

• The percentages for expenditure on equipment were, once again, very disparate: the highest value was recorded in local councils for towns with between 500 and 1000 inhabitants (38%) and the minimum value for Diputaciones, Consejos and Cabildos Insulares (12%).

• In the section corresponding to expenditure on IT services, the lack of IT staff in small town councils took their spending on IT services up to 52%. This figure was also very high in Diputaciones, Consejos and Cabildos (46%), whereas for the remaining local councils, these percentages ranged between 20% and 33%.

The ratio that measures the relative position of two of the headings that have traditionally been considered as the most significant in IT expenditure - equipment and staff - stood at 0.51 on average in 2005. However, the distribution according to town size varied between 0.32 for Diputaciones, Consejos and Cabildos Insulares and 0.92 for towns with between 10,000 and 30,000 inhabitants.

IT expenditure in Local Government accounted for 1.37% of chapters 1, 2 and 6 in the total budget 2005. This represents a slight increase in relation to the value recorded in the IRIA Report for 2004 (1.20%).

IT expenditure per inhabitant in local government stood at 10.09 in 2005.

Numbers of personal computer

The number of personal computers installed in Local Government as of the 1st of January 2006 stood at 280,650. When this figure is broken down by town size, analysis reveals smaller towns had an average of 6 personal computers per local council, increasing to 5877 computers on average in towns with over 500,000 inhabitants.

In terms of the ratio of computers in the town council to the number of inhabitants in the town, the highest figure was recorded for smaller towns, with 8 PCs per 1000 inhabitants; this figure generally decreased as the size of the town increased, and larger towns had an average of 4.7 PCs per 1000 inhabitants.

Out all the personal computers installed as of the 1st of January 2006, a total of 232,941 were connected to the Internet, representing 83% of the total. 90% of all the PCs installed in local councils for towns with between 10,000 and 30,000 inhabitants were connected to the Internet; this percentage fell to 74% in towns with between 100,000 and 500,000 inhabitants.

The level of intranet connection was higher in large towns (92%), falling to 14% in the smaller towns. This is due, as we shall see later on, to the fact that very few small town councils have an intranet.

The percentage of intranet connection increased overall by 24% in relation to 01.01.2004, whereas the percentage of intranet connection remained the same.
ICT Staff

The figures provided in this section relate to both public sector employees (civil servants and staff) and employees in public companies. The total figure as of the 1st January 2006 stood at 6,898: 79% were public sector workers and the remaining 21% were employees in public companies.

24% of these employees worked in Diputaciones, Consejos and Cabildos and the rest worked in town councils.

Diputaciones, Consejos and Cabildos and large town councils had the highest percentage of employees from public companies (36% and 40% respectively). For other sized towns, this percentage did not exceed 15%.

The percentage represented by ICT staff in relation to total staff numbers was 1.4%. The highest percentage was recorded for Diputaciones, Consejos and Cabildos (3.1%), a higher figure than recorded for the Spanish Central Government (2.59%). In town councils, this figure ranged from 0.9% for towns with between 1,000 and 30,000 inhabitants, to 2% for larger towns.

In terms of training in information technologies received by local government employees in 2005, the average number of hours’ training per employee stood at 1.45, a much higher figure than recorded for the Spanish Central Government (0.09). This rate ranged from 0.41 hours/employee in towns between 1,000 and 30,000 inhabitants to 3.83 hours/employee in Diputaciones, Consejos and Cabildos.

Finally, the ratio between ICT staffing costs and total staffing costs was 1.49%, an increase of 10% on the figure for 2004.

Government on the Net

Overall, there were 57 personal computers for every 100 employees: ranging from 44 in towns with between 1,000 and 10,000 inhabitants and 72 in Diputaciones, Consejos and Cabildos; this latter figure was similar to that recorded for Central Government (75).

Progress remained steady, although growth had slowed down to 12%, following the major push in the previous two-year period.

In terms of the number of e-mail inboxes in Local Government and the percentage in relation to public sector workers, the overall figure stood at 228,630 inboxes, 25% more than the figure recorded in the IRRA Report 2004. A significant increase was observed in the numbers of e-mail inboxes available in all sizes of towns, reaching as high a 42% for towns with between 10,000 and 30,000 inhabitants.

The average number of inboxes made available to every 100 employees was 46 (in comparison with 21 four years ago). In general this figure increased with the size of the town, ranging from 28 in towns with between 1,000 and 10,000 inhabitants to 73 in large towns.
In relation to the number of computer terminals with Internet access and the percentage represented in relation to the total number of employees, this figure increased by around 50% since the previous report. This increase was particularly significant in towns with over 500,000 inhabitants. Employee access to the Internet increased by 38% to 47%, exceeding the figure recorded for Central Government (42%).

As regards the number of computers with Internet access, this figure stood at 206,158 representing a 20% increase since 01.01.2004. In large towns, the percentage of employees with Intranet access was higher than the percentage of employees with Internet access; the opposite was true of small towns, which were less likely to have an intranet. Overall, the figure stood at 42%, a slightly lower percentage than achieved in Spain’s Ministerial Departments (49%).

90% of Diputaciones and local councils for towns with over 10,000 inhabitants had Internet access; much lower percentages were recorded in small towns. Since there are a great many small towns in Spain, the overall figure only reached 46%. Excluding town councils with their own intranet, 30% of local councils for towns with fewer than 30,000 inhabitants were connected to the intranet of their corresponding Diputación. In terms of the services offered by these intranets, 60% provided security applications, corporate applications and e-mail.

Finally, 3% of local government employees had an electronic signature to carry out their duties, one percentage point higher than the figure achieved by Central Government.

E-government

Practically all councils for towns with over 10,000 inhabitants had their own website; this figure fell to 48% in towns with between 500 and 1,000 inhabitants. In the case of small towns, 25% of towns with between 1000 and 10,000 inhabitants that did not have their own website did have specific pages within the website of their corresponding Provincial Council (Diputación), which means that 97% of these towns had information available on the Internet. For the smallest towns, 29% that did not have their own website also had pages within the website of their corresponding Diputación, taking the Internet presence of these councils up to 77%.

Finally, the percentage of public access Internet centres and public access Internet points that local government provides citizens is becoming increasingly significant in the smallest towns, which is certainly a reflection of the effort made by Diputaciones to bring the Internet closer to citizens in small towns and villages, in accordance with the stipulations of the LMMGL.

Introduction to the local Government “Pista” Programme

As we all know, small town councils often have to deal with a major lack of resources that prevents them from improving internal operations and public services; in relation to the difficulties faced when making use of Information and Communication Technologies, this lack becomes even more apparent.
The European Community has been recommending the use of e-Government in all towns are some time now. Additionally, the Spanish Ministry of Trade Industry and Tourism created the PISTA programme (Promotion and Identification of Advanced Telecommunications Services) in order to achieve greater integration of Information and Communication technologies. All of this provided the culture medium in which the Local Government PISTA project began to grow.

The aim of the Local Government PISTA Project is to provide small and medium-sized towns with a technology platform that enables them to offer citizens the same advanced services that the Information Society can provide large cities or other government bodies.

PISTA Local was created on the basis of a simple premise: supra-municipal bodies (Diputación, community associations) should be in charge of offering small and medium-sized towns systems and contents storage and maintenance solutions, so that small town councils could have the same website and e-Government services as any large town or city. The Spanish Association of Townships and Provinces (FEMP) also offers support and training for both supra-municipal bodies as well as small and medium-sized town councils.

The aim of this project is to provide town councils with a series of common interest tools that enable them to offer e-Government services to their citizens, both in terms of information as well as the possibility of carrying out administrative procedures electronically.

PISTA Local enables local councils to develop web sites so that they can offer information and services to their citizens by means of user-friendly tools and a powerful content manager and search engine.

In general terms, PISTA Local has the following:

- **Content manager**, to create, publish and make information accessible over the Internet in a way that is simple and easy to use.

- **e-Counter Service**, which provides all the usual services offered by the local council, such as
  - Administrative processes and procedures.
  - Resources and facilities.
  - Notice board.
  - Calendar of activities in the local area.

- **Local e-Newsletter, PISTA Local** enables local councils to create and maintain electronic newsletters in order to offer an online information service, both over the website and by e-mail.

- **Internal Management Applications**, which enable citizens to access services such as
  - The census.
  - Financial position of the citizen or company in relation to Local Government.
  - Situation regarding taxes and rates.
An Overview of the Websites available for Spain’s Major Cities

The PISTA project is aimed at small towns, but we would like to conclude this report by briefly looking at the situation of large towns and cities.

The most important newspaper in Spain, “El País”, analyses local council websites in Spain for towns with over 75,000 inhabitants, in its specialist supplement “CiberP@is”. In 2006, a total of 93 towns and cities were analysed, focusing on the following variables:

- Existence of an interactive website.
- Number of visits a month.
- Possibility of carrying out administrative processes on line.
- Downloading of official forms.
- Possibility of paying taxes and rates on line.
- Citizen file (possibility of citizens’ gaining access to all the information the local government has filed on them).
- Use of digital certificate.
- Local street map.
- Transport map and information.
- Search engine.

All the 93 towns and cities analysed provided an interactive website. Official forms could be downloaded in 88 town websites (94.6%), which gave information on how, when and where to make the application. 23 websites had digital certification and some Autonomous Regions, such as Andalusia and Catalonia, had measures in place to increase the number of digital certificates offered by their local government bodies.

51 of the websites (57%) allowed citizens to pay taxes, rates or fines on line. 100% percent offered a local street map. All the 93 interactive websites provided a citizen advice service and a suggestion and complaints box. A test suggestion/complaint was left in the boxes of all 91 local councils to check the actual response rate: replies were received from 54 councils (58%), as compared with a 55% response rate in 2005, 32% in 2004 and 29% in 2003. But in this year only 5 of the responses came back on the same day, 3 in one day, 11 in 2 days, 18 in 3 days and 7 in 4 days.

There was also a growing variety of services offered over the Internet and even via mobile phones and PDAs.

There were also certain shortcomings noted, however. 37 of the websites (39.8%) fell down on the requirement of accessibility for all citizens, failing to ensure that their websites could be seen, heard and read by everyone including disabled individuals. They failed a Web Accessibility Test (WAT), a programme that automatically checks the degree of accessibility to any site, following the rules laid down by the World Wide Web Consortium (W3C).

Finally, as part of a special Local Government Modernisation Programme aimed essentially at developing and implementing ICT, the Ministry of Public Administrations subsidised projects in 130 Spanish towns for a total of 13,316,970 in 2006, and will be investing almost the same amount in 2007 in the same programme.
From e-Government to t-Government - Transforming Public Services in the UK

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Background

The Local e-Government programme ended in March 2006 and its successes were outlined in my paper in the 2006 conference volume in which I also outlined the new pan-government Transformational Government Strategy. In this paper I would like to further illustrate this strategy and discuss some of the barriers to progress and the steps being taken to overcome them.

The Transformational Government Strategy

In the UK we are at a tipping point in policy context with many policies and strategies all underpinning some fundamental principles:

- The public sector reform principles
  - Citizen engagement.
  - Expanding choice.
  - Increased competition.
  - Alignment with customer needs.

- Transformational Government
  - Services aligned with the requirements of citizens.
  - Collaboration in front office, back office, information and infrastructure.
  - Improved ICT/e-Gov capability.

- Development of Shared Services vision.

All of these orientated around the facts that all citizens really care about are the quality of services they receive and the amount they have to pay in taxes to receive them.

Identified areas for improvement

Having analysed the performance of UK Local Authorities we have concluded that there are some fundamental areas for improvement:

- Better information and intelligent analysis
  Too much valuable management information is locked away inside corporate IT systems and it is not easy to unlock it. A typical case is the data held within financial systems. Often managers cannot access up to date budgetary positions due to the complexity of the coding systems used. If better access to corporate information cannot be attained it’s difficult to see how good decisions can be made on corporate policy and objectives.
• Service Redesign
  Too many services are delivered using business process which have evolved over many years and have not been re-examined from an efficiency and improvement point of view. Process are often lengthy and bureaucratic and bare little relation to customer-focussed service delivery thinking. It seems appropriate that business processes in key areas should be re-engineered, shorter processes are likely to cost less and deliver better services.

• Procurement
  Though great savings have been made by employing better procurement and eprocurement techniques it is clear that further significant savings can be made. In particular Local Authorities should be encouraged to procure collaboratively to take advantage of better prices due to increased contract volumes. The Transformational Government strategy applies to the whole of the public sector and early analysis shows that in a given geographical area such as a city, half of public sector procurement is on specialist goods and services but the other half is of a generic nature. Further gains can be achieved by collaboratively procuring across different types of public sector bodies.

• Asset Management
  In a similar way, assets are not shared particularly well. Often e-Gov systems improvements are made by individual councils who develop their own IT capability. No-one asks whether such capability can be shared. We’re sure that there is massive overcapacity on IT capability across the UK and opportunities should be sought to share server capacity and infrastructure.

How Local Government can be improved its “Business”

Given the above areas for improvement how can Councils improve their ‘Business’?

• By understanding their drivers. There are many policy drivers for an individual Council. Some are external, such as the requirement to achieve cashable savings of 3% year on year. Some are local, such as the need to deliver joined up services with others under Local Area Agreements which seek to drive improvements for communities. Some are taken at Council level by elected politicians. These drivers need to be rationalised into a vision for the direction of a Council and this vision must be clearly communicated throughout the organisation so that staff know where to concentrate their efforts.

• By understanding what works, based on sharing of experiences and successes between departments and between Councils.

• By having a planned approach which ties together many areas of improvement into a well managed programme aligned to the corporate vision. This avoids having different projects pulling improvement in different directions.

• By having the drive to see it through. The visible and practical support of senior management is the single most important success factor. Unless this support is given, staff will not have the ability to make changes from within.
• By assessing capability in a standard way. This enables valid comparisons to be made on Local Authority performance, highlighting areas for attention. If standard process improvement and costing techniques are not used then this acts as a barrier to future collaboration and there is no basis for service delivery comparison.

The importance of Business Process Improvement (BPI)

Business Process Improvement is seen as being a necessary building block in the modernisation of public services and a national project has been created to create and disseminate good practice in this area. The National Business Improvement Project (NPIP) was created in October 2006 as evidence showed that:

• 80% of councils believe that BPI is critical to the modernisation of public services.
• 90% believe that BPI projects are successful.
• 70% of projects have generated cashable savings.
• There will be a switch from Councils using BPI to deliver incremental change to supporting more extensive transformation.

The project aims to:

• Identify which elements of service delivery most benefit from a BPI approach.
• Identify what good work is already taking place and what the barriers are to achieving greater and faster progress.
• Develop a consistent method to compare and contrast service delivery.
• Help to establish the business case and the level of investment needed to create sustainable success.

Each separate workstream deals with a particular service area and has to deliver:

• A definition of the processes examined.
• The “As Is” and “To Be” process maps.
• A projection of the efficiency gains to be achieved.
• The methods used.
• How to overcome the barriers to progress.
• How to achieve the benefits identified.

These individual outputs will then be drawn together to form a toolkit on Business Improvement.

Some successes and early conclusions

• Early signs are that an effective BPI exercise can attain a 15:1 return in investment.

• Significant cashable savings can be made whilst improving the quality of service delivery.

• Once shared services are created within a Council it becomes easier to extend them across organisations.
• Up to 17% of staff time can be saved by removing non-value adding activity.

• Alongside these efficiency savings, services become more focussed on the needs of customers, while staff react positively to their experiences of BPI and become more highly motivated.

• The most successful approach is to develop an internal team of experts who can work with departments and train their staff to increase capability

**Barriers and Pitfalls**

Some common themes and problems have been identified where success has been harder to achieve:

• A lack of baseline data on how much services cost to deliver means that the business case for investment in improvement is difficult to make.

• A lack of senior management buy-in causes projects to fail.

• Low ownership by staff and a lack of drive to deliver means that identified benefits may not be realised.

• A culture of trust must be established to overcome fear of change.

In conclusion, the UK has a strategy for moving from e-Gov to transforming government. Though such great change will not be achieved easily we believe that the use of Business Process Improvement tools and techniques will allow us to improve the quality of service delivery to citizens whilst reducing the cost of delivery.
Goal: electronic access to all services for all customers by the end of 2008

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The State Social Insurance Fund Board (SSIF Board) is the authority which implements state social insurance in Lithuania. Due to its specific nature of activity the SSIF Board has a great number of customers and must exchange information with some of them on a regular basis.

At present, Lithuania has over 300,000 insurers with each of them visiting the SSIF Board or its local offices for eight times per year on average to submit or obtain compulsory information. Today Lithuania is home to more than 800,000 pensioners, who visit the said offices for three times per year on average, and 1.3 million allowance beneficiaries with biannual visits. Thus the SSIF Board and its local offices annually receive over 7 million direct customer visits.

Furthermore, the information available to the SSIF Board is required for rendering many public and private services. Information about the person’s insurance status, earnings and employer is necessary for providing social assistance (at municipalities) and health care services, issuing various permits and visas and rendering other public services.

Special focus should be placed on information exchange with pension accumulation companies, which are also part of the Lithuanian social insurance scheme. Banks and leasing companies use the information available to the SSIF Board to measure the person’s solvency before granting them a loan or when rendering leasing or factoring services. The information at the disposal of the SSIF Board is also vital for the efficient operation of law enforcement authorities such as courts, the police and bailiffs.

The SSIF Board provides information to state or municipal institutions or private companies, which, in turn, render services to end users. Today basically all such information is provided in electronic form only.

The SSIF Board and information recipients have signed bilateral data provision agreements, which are the basis for data provision. Agreements are drafted in compliance with the provisions of the Law on Legal Protection of Personal Data of the Republic of Lithuania and are adjusted accordingly whenever the law is amended. The Law permits provision of personal data when the data recipient needs them to carry out statutory functions or upon obtaining the person's consent. Since different data recipients perform different functions, they need different data. For this reason identical data provision agreements cannot be signed with different data recipients.

As already mentioned before, data exchange with pension accumulation companies deserves broader elaboration. In Lithuania, second-pillar pension funds are administered by private pension accumulation companies. Persons willing to participate in second-pillar pension accumulation (participation is optional, and the person may choose whether to be insured with state pay as you go insurance only or to allocate part of the
contributions to cumulative pension insurance) conclude an agreement with the chosen pension accumulation company. However, the register of persons who participate in pension accumulation is managed and contributions are collected and transferred to the funds by the SSIF Board. For this reason rapid and reliable data exchange between the SSIF Board and pension accumulation companies is required. The subsystem of the SSIF Board’s information system implemented in 2004 has enabled pension accumulation companies to verify electronically whether the applicant can conclude a pension accumulation agreement and after concluding the agreement to verify whether all the data provided in the agreement are correct, and if they are, to register the agreement. In the further phase, the program enables the user each quarter to calculate the sum payable to each person and the sums payable to each fund and to provide other information required by the pension accumulation company. Recently, the system has enabled pension accumulation companies to obtain information about the pension accumulation participants which shifted their company.

Data exchange takes place in two modes: package-based and online. In the package-based mode data are recorded in a text file according to a specified structure. The file is encrypted with a 3,072-bit key and placed on an FTP server to be collected by the pension accumulation company. Data exchange in the other direction is performed in a similar way. In the online mode, one enquiry is generated as one XML file of specified structure, which is signed with an electronic signature using the x.509 certificate issued by the SSIF Board. This XML file, as a binary resource, is attached to the enquiry and using the POST method is transferred in an HTTPS (HTTP over SSL) protocol to the SSIF Board’s server. To respond to this enquiry, a response XML file of a different structure is returned.

Public authorities are another large group of recipients of SSIF Board’s information. These are the State Tax Inspectorate, the Customs Department, Statistics Lithuania, the police, courts and others, totalling nearly 50 institutions. Data are also provided to all 60 municipalities. Provision of data is governed by the law as they are required for the performance of the statutory functions of those authorities. Since the various institutions need different sets of data, a data provision agreement has been signed with each of them specifying not only the kind of data to be provided, but also the method of provision.

At present, data are provided to public authorities in electronic form only, with the exception of individual cases when authorities need data very rarely, several times per year.

Data are provided in encrypted data transmission channels using a special server, which ensures data encryption and control over access rights and refers customer enquiries to corresponding database servers located on the local area network of the SSIF Board. All connections of external customers are possible only through this server. SSL or IPSec protocols are used for data encryption.

Control over access rights is performed on two levels – connection is allowed only from specific IP addresses indicated in the agreements or customers provide identification data (SSL certificate and/or passwords). Unsuccessful (unauthorised) connection attempts are logged. The adequate data provision tool is chosen at the time of concluding the data provision agreement and depends on the nature of data and the software and hardware facilities available to the SSIF Board and to the data recipient.
Two modes of data provision are available: On-line and Off-line.

- **On-line** – during the enquiry, the procedure agreed beforehand or the stored enquiry of the party to the agreement is performed. Data are provided in specified parameters, and after the end of the enquiry a response is generated and provided instantaneously to the recipient. The time of response provision equals to the time of performing the enquiry or the procedure and depends on the complexity of the enquiry and on the load of the database.

- **Off-line** – during the enquiry, a procedure agreed beforehand is performed, which puts the content of the enquiry into a queue on the SSIF Board’s information system for subsequent processing and returns a unique enquiry identifier to the data recipient. The enquiry is processed and a response is generated by a special process (JOB) in the SSIF Board’s database, which operates periodically at the time set by administrators of the SSIF Board’s information system. The generated response is placed on the SSIF Board’s information system. The data recipient inquires about the processing of the enquiry by performing a special procedure, indicating the identifier of the enquiry. If the enquiry has been processed, the data recipient downloads results through the same or another procedure. The duration of processing the enquiry should not exceed the time period indicated in the data provision agreement (normally 2 calendar days). The off-line mode is also applied to data provision using the materialised views tool when the data recipient can read from the tables, which are specially designed for data provision, the periodically (without special enquiry) updated information of the scope outlined in the agreement.

Data recipients can submit enquiries and receive results in several ways. The data recipient's information system uses ORACLE DBVS, and the data recipient connects directly to the SSIF Board’s Oracle server, which is intended for data provision to external organisations using the Oracle Net protocol. The SSIF Board creates a user for the data recipient in its database and allocates a user password, as well as grants the user the “CREATE SESSION” privilege and the right to perform the program package procedure and/or to view specific tables.

Where the data recipient does not use ORACLE DBVS or is not willing to use Oracle Net for other reasons, an encrypted HTTPS protocol and an XML server on the SSIF Board’s side and an XML client on the data recipient’s side will be used for data exchange. The SSIF Board provides the data recipient with the XML server’s IP address and port number. The data recipient sends an enquiry in the XML format established in the agreement using an HTTP POST report. The data recipient’s server processes the enquiry and returns in XML format a response or report about the placement of the enquiry on the queue (in the off-line mode) with the enquiry identifier or an error report. To establish encrypted connection, the SSIF Board and the data recipient exchange x509 certificates (self-signed or ca) in advance. Additional encryption of data is not available. The data recipient’s server is identified using the IP address and the x509 certificate, which the data recipient submits in advance.

**WEB.** This is an interactive method of data provision. Using a web browser, the data recipient opens the specified webpage on the SSIF Board’s HTTPS server and after providing identification data (user name and password) completes a form (established in the agreement) and clicks on the execution button.
The WWW server establishes connection with the SSIF Board’s database and performs the procedure or a SQL enquiry with provided parameters. The results of the enquiry are provided to the data recipient in the HTML format and are displayed on the browser. Using this method, data are provided in the on-line mode only.

Although the SSIF Board is currently implementing a project to introduce a qualified electronic signature, we maintain that the described methods of data provision to public authorities and other organisations will remain the principal ones before most institutions are ready to adopt the SOA (Service Oriented Architecture) because this particular interaction between information systems requires no human interference and therefore ensures the highest speed and efficiency. Nevertheless, the highest information flows come from direct customers of the SSIF Board: insurers and the insured. At present, they are provided first- and second-level electronic services.

Detailed information about the SSIF Board and state social insurance in Lithuania is available from www.sodra.lt. Here information is structured in a clear and simple way to meet the different needs of SSIF Board’s customer target groups: the insured, insurers and beneficiaries.

The website presents the SSIF Board’s mission, goals and history, contains information about state social insurance and electronic public services available from the SSIF Board, gives insights into types of social insurance benefits, entitlement terms and social insurance in the European Union, and provides contact information and regulatory enactments governing state social insurance as well as statistical and other types of information. Ordering news by e-mail is available. The website is renewed and updated on a regular basis.

To find out more about state social insurance there is no need to travel to the SSIF Board’s local office or to call by phone. Concerns can be sent by e-mail to sodrainfo@sodra.lt or by filling out a question and comment questionnaire on the said website. The latter method is particularly convenient because one does not have to write an e-mail. It is important that you indicate your correct e-mail address to receive a response. The electronic method is used for providing general information about social insurance. Persons willing to receive specific information about themselves must be identified. The SSIF Board currently provides such services only over the e-Vartai portal.

The SSIF Board’s website provides computer-fillable request forms to receive benefits. These were created to facilitate the filing of requests and statements. After downloading a computer-fillable form, the person can complete it at home or at work if he or she has all required documents. The section of the form to be filled out by specialists at the SSIF Board’s local offices is inactive, and forms are supplied with filling instructions. All you have to do is to sign the printed-out form and submit it to the SSIF Board’s local office.

At present, a new version of the website is under development, which apart from the current functionality will provide the opportunity to fill out the form on the website and thus order a paper statement to be collected by the customer upon visiting the local office. In addition, the base of frequently asked questions will be accumulated and presented for the convenience of website visitors.
Since last year, residents who connect to the system administered by the Information Society Development Committee (address www.paslaugos.evaldzia.lt) have been able to check the information about the social insurance contributions paid by the employer for their benefit.

Since the autumn of last year, the SSIF Board has implemented the EU-supported project “Information System for Accepting and Processing Electronic SI forms,” which is aimed at rendering 4th maturity level electronic services to insurers. This electronic service is one of other 20 basic electronic services which are indicated in the Implementation plan of the Conceptual Framework of the e-Government. This plan was prepared by the Ministry of the Interior and approved in year 2006. It aims at delivering 90 percentage of 20 basic electronic services using modern ICT by year 2008.

The goal of the project is enabling insurers to submit data to the SSIF Board and to use the services available from the SSIF Board over the Internet. Following implementation of the project, insurers will be able to receive the following electronic services without leaving their home or office:

- Send SI reports, accounts and other data accumulated with the SSIF Board signed with electronic signature.
- Send requests to issue a statement.
- Obtain individualised information accumulated with the SSIF Board and information within their interest.
- Authorise provision of specific information about themselves available to the SSIF Board to another person.
- Receive any other services available to insurers of the SSIF Board.

Plans are to finalise the project before the end of 2007.

In 2008, intentions are to transpose all the services rendered to insured persons of the SSIF Board to the electronic environment as well. The SSIF Board developed the investment project “Integration of social insurance and social services for citizens and their transposition into the electronic environment.” The project is aimed at enabling the Lithuanian population to use the state social insurance services available from the SSIF Board over the Internet. Following implementation of the project, residents of the Republic of Lithuania will be able to:

- Over the Internet at any time obtain complete information about state social insurance contributions paid by the employer for their benefit, their employment record entered on the SSIF Board’s information system as well as reckoned and disbursed state social insurance benefits.
- File requests and initiate provision of state social insurance services in electronic form.
- Accept messages sent to them and provide messages in connection with procedures of rendering specific services in electronic form.
• Simulate and forecast potential amounts of state social insurance benefits in electronic form.

Implementation of the project will result in more simplified procedures of rendering state social insurance services (with increased automation levels) and reduce the time span to the commencement of service provision and the need to visit the local office of the State Social Insurance Fund Board to receive specific services, which will enable Lithuanian residents to save money, time and energy in obtaining the public services available from the SSIF Board.

Furthermore, this will reduce the costs of the State Social Insurance Fund allocated to the rendering of services to customers and will improve the quality of services. Another outcome will be the enhanced quality of data stored on the SSIF Board’s information system because insured persons and beneficiaries will detect inaccuracies faster and will report them quickly to specialists at the SSIF Board.

It is of utmost importance that control over protection of personal data will improve because persons will be able to obtain data in electronic form about who, when and for what purpose was given the information about them and in most cases to provide information about themselves to the person chosen at their own will. In addition, access to services will be provided to residents which are geographically remote from the service provider. Thus the project will ensure regional development.

Following implementation of the projects referred to above at the end of 2008, all insurers and the insured will be able to access all the services available from the SSIF Board over the Internet.
New Benefits for user of the Electronic Declaration System

Public Relation Division, State Tax Inspectorate
- Under the Ministry of Finance, Lithuania

The State Tax Inspectorate (hereinafter referred to as the STI) faces a variety of factors that impact on its operation while delivering functions, i.e. constantly increasing taxpayer service needs, changing acts of law, emerging new information society and e-Business needs, and impact of EU processes on Lithuanian economy. In order to deliver functions in a high quality way and effectively, the STI must search for new methods, thus giving an increasing comparative weight for IT solutions.

Electronic Declaration System (hereinafter referred to as the EDS) has been operating in the Republic of Lithuania since 2004. This system provides an option for taxpayers to electronically submit STI administered tax returns and other tax-related documents, receive required information regarding acceptance of such documents from the STI, and for a tax administrator—to operatively and effectively process tax return data as well as utilize them for tax administration purposes.

After implementation of the EDS, taxpayers were provided with possibilities to use modern means of communication, tax procedures became less complicated, and less time and resource consuming. Now taxpayers deliver a number of tax procedures on the basis of “one-single-point” principle and without having to leave their place of work.

Electronic declaration is becoming one of the most popular public e-Service for the Lithuanian citizens, companies and public institutions.

According to the data of the survey\(^1\) on e-Governance Indicators commissioned by the Information Society Development Committee under the Government of the Republic of Lithuania (ISDC), the number of individuals interested in public e-Services is increasing.

During the first 6 months of 2007, 44% of the Internet users, or 20% of the country’s population visited websites of public institutions (in 2006 – 14% of the population).

At websites of the public sector institutions people usually search for general information about the institution, its areas of activities (this is done by 68% of website visitors), look for general information about public services provided by the institution and the procedure of receiving them (37%) and relevant legal or administrative information (36%).

According to the survey, 28% of visitors of the public sector websites have electronically submitted completed forms or other information needed to receive an e-Service, 25% downloaded forms online to receive services of the institution.

Most individuals have used e-Services related to the personal income tax (44% of visitors of the public sector websites), job search (27%), learning opportunities (19%), legal information search (18%) and transport (18%). E-services related to the personal income tax (40%), job search (32%) and healthcare (24%) were referred to as the most useful ones.

\(^1\) The data were collected during the first 6 months of 2007.
The EDS, having received favourable assessment from taxpayers and other national institutions, now provides serves not only for submission of tax returns but is also a tool offering other e-Services.

On the STI’s website individuals can find comments on taxation laws, can register for personal consultations, obtain certificates and blank forms online, can submit applications for a VAT payer certificate as well as a certificate concerning taxes paid, evaluate the STI activities and anonymously inform about taxation violations, etc.

Supply of Documents Electronically

A list of returns and other documents that can be currently submitted through the EDS is supplied in the EDS website at deklaravimas.vmi.lt. Currently the EDS supplies 49 various document forms. As STI was constantly improving and promoting this system, 542 thousand of EDS users were registered in the 1st quarter of 2007, which exceeds 28% of all Lithuanian residents as potential taxpayers, who submit tax documents electronically both for themselves and as authorised representatives of legal entities.

An individual who successfully submitted a document electronically is not required to supply a paper copy of the document because an electronic document has the same legal effect as a signed paper copy submitted in traditional ways. Taxpayers who submit documents through the EDS are promptly provided with an electronic message regarding acceptance results and (or) errors (inconsistencies) identified in the submitted document. In order to submit tax documents electronically, an agreement for electronic submission of returns has to be signed with the STI (hereinafter—Agreement). This Agreement sets out rights and responsibilities of the undersigned parties.

In order to become an EDS user, a natural person should sign an Agreement in a territorial office of a CSTI (for authentification in the EDS a user is registered by a STI employee) or draft an electronic Agreement for authentification in the EDS through Internet banking systems. In order to supply documents electronically, legal entities should sign an Agreement in a territorial office of a CSTI and list the persons who would be electronically submitting returns in the name of a legal entity. One natural person can submit documents for a number of taxpayers.

A document may be electronically submitted in the following ways:
- Returns designed and pre-filled by the STI are submitted to taxpayers; or
- A pre-filled file can be sent via the EDS portal; or
- Interactively (on-line) filled-in in the EDS portal; or
- Drafted and sent electronically; or
- Drafted and submitted in an electronic media; or
- Web service can be used.

In order to draft a document data file, a taxpayer may download a freely (free-of-charge) distributed software application ABBYY FormFiller and wanted return forms in MXFD format from the EDS website and install it on a personal computer. While filling-in documents with ABBYY FormFiller instruments, a document filling and data structure control is delivered, filling errors are provided, and the lists of meanings and descriptions are supplied.
Once MXFD forms are filled-in with the ABBYY FormFiller, a data file is formulated in .ffdata format (on the basis of XML). A taxpayer may also submit correctly formulated return in .ffdata files with the help of other instruments, for example accounting software applications. While filling a return interactively (on-line), the same data file is filled-in (FFDATA) with the help of ABBYY FormFiller. An interactively designed return file is placed into one general return acceptance queue together with other files.

While sending documents via electronic mail (deklaracija@vmi.lt), it is important to only use a personal electronic mail address, which was previously registered in the EDS. Once a taxpayer sends a document, he/she at once receives a message drafted by the EDS, upon receipt of which a taxpayer has to verify sending of a document to EDS via electronic mail in no later than one hour.

If a document submitted to the EDS contains no critical errors, a document acceptance is issued by the STI, also comprising processing of a return in other IS of the STI. EDS submits information about a document acceptance (processing) results (once receiving processing results from another IS of the STI) in the EDS website and additionally informs a taxpayer about:

- Successful acceptance of a document to an indicated electronic mail address of a taxpayer (if a feature is selected to provide information electronically).
- Errors identified in a document to an indicated electronic mail address of a taxpayer (if a feature is selected to provide information electronically) or drafting of a message (a notice) for provision of information by regular channels.

In the EDS website, a taxpayer may review a list of submitted documents in the form of .ffdata files, acceptance results (accepted and non-accepted documents, identified errors if such were found, and document statuses), lists of submitted documents and data review filtering and sorting options. Internal EDS users see documents as .ffdata files, processing of which has terminated (files with statuses Accepted and Non-Accepted). Also, users may order an original of supplied documents.
Related Obstacles, Risks, and Planning

Invoking on experience of private and public sectors, the EDS project employed risk management and project planning methodologies, which helped anticipating and preparing for possible interruptions or other type of problems. Regularly analysed, supplemented, and revised risk management plan (risk register) helped identifying obstacles for effective implementation of not only EDS but also effective utilization of other IS of the STI. Besides, this tool helped the STI and the service provider to remain flexible, promptly react to problems, and be ready to properly and effectively come up with required solutions.

Project partners—specialists of Microsoft Consulting Services—were involved into project management. The Microsoft Solutions Framework (MSF) method was used for the project management. This reduced project risks and increased a possibility of successful implementation as well as helped ensuring correspondence of technological solutions and infrastructure to the needs and aims of the STI. A lot of attention was given for analysis of requirements and aim to apply solutions that are the most suitable for the STI and service providers, which would ensure the quality control.

New Services Available in 2007

The STI is aiming to utilize new technology options and implements various specific services for users of the EDS. One of such services is a “pre-filled tax return” (preliminary declaration—PD) pre-filled by the STI with data received from the third sources (i.e. tax deducting persons, credit institutions, banks, insurance companies, pension funds, and scientific undertakings, etc.).

PD—a declaration file prepared in .ffdata format by the processing system to be used by a taxpayer for conversion of the file into an electronic return with the help of simple EDS instruments. During the 1st quarter of 2007, 35,367 residents verified their PDs without downloading them for revision (i.e. residents verified that the partially pre-filled returns supplied all correct data and this way submitted personal income tax return forms GPM302 for 2006). On the basis of correctly filled electronic personal income tax returns a tax overpayment is refunded in the course of 10 days.

Picture 2. PD Scheme
Another new service—admission and processing of applications from legal and natural persons regarding registration/deregistration in various STI taxpayer registers (i.e. VAT Payers’ Register and etc.), amendment of data in registers, and accept other submitted applications. Both individuals and legal entities using the STI e-Declaration system can now become payers of the value added tax without leaving their workplaces.

Taxpayers (both individuals and legal entities) can electronically from their working computer submit two new forms to the STI that allow them being registered/unregistered as VAT payers. With the new function implemented in the system and register documents the taxpayer will be able to submit applications for registration in/deletion from the Register of Value Added Tax Payers (Forms FR0388 and FR0389).

Taxpayers having submitted the above application forms electronically will automatically receive information about the progress of processing the application forms and the course of registration in/deletion from the Register of Value Added Tax Payers. Due to the opportunity to submit both application forms and other taxation documents electronically, one need no longer to come to the County State Tax Inspectorate.

Acceptance of applications via EDS operates in the same way as acceptance of returns. All rules pertaining to acceptance of returns via EDS also apply to acceptance of applications. Besides, all actions that can be delivered in relation to returns can also be executed in respect of applications.

Introduction of the Web Service facilitated data filling and submission from taxpayers to the STI, providing a possibility to adapt and utilize accounting and other taxpayer owned information systems for submission of returns and other documents via Internet, which in turn helps saving time.

**Benefits for Taxpayers**

59% of Lithuanian residents are potential taxpayers. They can choose the most convenient way of declaration submission either through electronic means or physical delivery. They also enjoy time and cost savings as EDS has such functions as on-line error warning, customised declaration forms in paper and digital formats, comprehensive information portal, etc. Taxpayers can also see their income/tax information provided by the third parties to the STI.

33.7% of all (submitted by natural and legal persons, and state undertakings) returns were submitted by residents. 63.7% of residents submit personal income tax returns (these returns have to be submitter once a year), i.e. 706 365 returns were submitted for the year 2006 and 67.16% of them were submitted electronically using the EDS.
In turn, from the total of returns received from legal persons in 2006, 70.1% were submitted electronically via the EDS. Currently, 10 million documents have been submitted in the form of the EDS electronic data. Besides, since implementation of the EDS the number of errors in taxpayer returns was significantly reduced.

![Percentage of returns submitted through EDS in comparison to all submitted returns](image)

**Picture 3. Percentage of returns submitted through EDS in 2004-2006**

**Submission of VAT returns according to months in 2004-2006**

![Submission of VAT returns according to months in 2004-2006](image)

**Period of time, for which returns were submitted**

Substantial time and cost savings delivered by EDS are especially beneficial to companies as they handle large number of obligatory declarations. It is counted that EDS has already helped to save EUR 5.8 million only for companies and public institutions.

The time required for VAT or tax refund has shortened several times, e.g. before EDS it took several months before VAT was refunded, now it takes up to 5 days. This has a very positive effect on cash flow of companies.

![Graph showing percentage of personal income tax returns submitted electronically]

**Picture 5. Personal income tax returns submitted in 2005, 2006, and 2007**

The residents have already evaluated convenience of the EDS—in 2006 approximately 40% of income returns were submitted via electronic media. The number doubled compared to 2005 (almost 20 percent), and in 2007 the number amounted to approximately 80% and such tendency allows hoping that every year more and more residents will use the advanced STI services, giving up paper forms of returns.

Citizens especially value the fast process of tax overpayment refund. Since this year, personal income tax overpayments are returned in the period of 10 days since the moment when a correctly filled-in return is submitted electronically.

**Sharing Experience with Other Public Sector Institutions**

The growing recognition of the EDS has encouraged the development of similar e-Services by other public institutions, e.g. the State Enterprise Centre of Registers. ABBYY eFormFiller tool is also used by the Department of Statistics of the Republic of Lithuania ([www.std.lt](http://www.std.lt)) for provision of statistical forms as well as Social Insurance Fund Board under the Ministry of Social Security and Labor ([www.sodra.lt](http://www.sodra.lt)). Therefore, the EDS promotes the development of nationwide information society in Lithuania.

Over these few current years, cooperation between the STI and taxpayers has reached a new level: the STI has taught taxpayers to use new declaration methods and delivered
many tax-related seminars and open-days, meanwhile taxpayers ascertained that the STI is capable of employing modern methods, providing advice, and contributing to containment of administrative resources.

The STI strengthened its relations with various institutions as technology and user authentication issues would have not been resolved without their support. Considering the experience and solutions of the STI in the area of declaration, the EDS uses free-of-charge software tools and open filling template principles used in other institutions of the Republic of Lithuania that deliver functions of data collection from individuals.

The STI willing to keep the position of one of the leading institutions providing e-Services in the public sector plans to shift as many services as possible to the electronic environment.

NOTES
1 The survey e-Governance Indicators commissioned by the ISDC was carried out by TNS Gallup. The population was surveyed in May and June of this year. 1,021 respondents were involved.
E-government in Austria 2007-2010

Christian Rupp
Spokesperson Digital Austria, Austrian Federal Chancellery

The use of Information and Communication Technologies is allowing us to be, at the same time, both local and global. Local, in the sense that people are rooted in their communities and in their identities, but then they act globally. We should think locally, we should be linked to our interest environment but we should then act globally. Austria fully supports the idea of a truly Global Information Society. That means a Society where all people, without distinction, are empowered freely to create, receive, share and use quality information and knowledge for their social, cultural, economic and political development.

In the programme of the Austrian Federal Government 2007-2010 e-Government plays an important part, e.g.

- Efficiency, customer orientation and prompt safeguarding of legal security are the most important criteria for a modern system of administration.
- Every authority must define standards for transactions, whereby speed, reduction in processing time, and quality of service as determined through the application of quality standards, are important criteria. The one-stop-shop principle shall also be developed further.
- The municipalities are a particularly important partner for the implementation of the e-Government initiative, as they are closest to the "customer" of the administration, and thus are the most important level in terms of numbers of contacts. Generally, every citizen in every municipality must have access to every form of e-Government at a Federal, Federal Province and municipal level.
- Therefore, to ensure the efficient implementation of the e-Government strategies, a monitoring project shall be conducted together with the Provinces using the “Digital Austria – Progress and Results” platform, in order to ensure the country-wide availability of secure electronic access points particularly in the municipalities, and to allow processes to be conducted electronically from start to finish.
- The new Austrian Federal Government intends, as part of its efforts to reform state administration, to take measures to combat the emergence of corruption. In this connection, a cross-departmental code of conduct will be drawn up in cooperation with the other local authorities.
- Every governing party will nominate a government member to coordinate matters relating to administrative reform and e-Government.

The core tasks of e-Government must be the simplification and speeding up of processes between the citizen and public administration but also of internal processes of both administrations and the business sector. The Austrian e-Government strategy has therefore two main goals: process integration (electronic back office) and service delivery (electronic front offices).

Citizens will demand for easily accessible information and comfortable crossborder electronic transactions without caring of competences, geographical distances and administrative particulars. National online services have to use common standards and
open interfaces to enable communication and data transfer between each other. Since 2001 Austria has developed several core components for the implementation of e-Government. Open source based tools and specifications such as the modules for digital signature creation and evaluation, the e-Payment and e-Delivery solution are also available for industries.

Capgemini and the European Commission released the sixth results of its ongoing survey on the adoption of electronic Public Services across Europe at the end of June 2006. Of the 28 countries benchmarked, Austria has the most advanced levels of online sophistication and complete electronic handling. Since 2004 progress has been such that the research can also focus on the number of public services that are truly fully transactional online, in this area also Austria leads the way.

Since the Austrian Federal Government revised its ICT-Strategy in 2000, much progress has been made in the development of e-Government. Uniquely, Austria chose from the very outset to develop a nationwide, uniform e-Government. Sustainability, security and data protection are of fundamental importance. The Austrian e-Government strategy defines fundamental concepts, basic components and standards that serve as guidelines for the implementation of electronic services and the creation of infrastructure. A very important part is also the intensive cooperation between all federal ministries, provinces, municipalities and local authorities as well as interest groups.
Our e-Government Act entered into force on 1st March 2004 serves as the legal basis for the provision of an e-Government infrastructure and for closer cooperation between all authorities providing e-Government services.

New mechanisms, such as the electronic signature, sector-specific personal identifiers or electronic delivery of documents, may also be used by the private sector.

Electronic services provided by the Austrian public administration served in recent years in many areas as pioneers for other European authorities. Tax Online, the Federal Government’s legal information system, the electronic Register of Companies and Land Registry are just some Austrian e-Government examples since the middle of the 90’s.

“Help.gv.at” is the interactive guide to all Austrian authorities and is an interface between our 12 federal ministries, 9 provinces, 80 district administrations and 2359 municipalities. It provides information on all interactions in the most frequent life events (more than 200 of them) such as pregnancy, childbirth, marriage or housing, and furthermore it permits the electronic processing of these procedures with special emphasis on such criteria as transparency, clarity of information and concentration on essential facts and all in a readily understandable and accessible format (with AAA compliance with WAI specifications).

In 2003 HELP received the European Union’s “e-Europe Award” for best e-Government portal in the category “A better life for European citizens” and was nominated at the United Nations World Summit Award 2003 in the category e-Government.
The electronic back office in particular plays an important role in e-Government. The “Electronic Dossier System” – referred to by its acronym “ELAK” (for “Elektronischer Akt”) - is one of the largest projects of the Austrian administrative reform, finished in January 2005. It constitutes a core element of the Austrian e-Government initiative for improvement in terms of quality and speed of services in the entire federal administration and is used in all federal ministries. All Austrian Ministries are using now one electronic file system which has almost completely replaced paper documents. Business processes are simplified and additionally, citizen-requests are handled faster; and official documents can be delivered via electronic means.

Another example is the Austrian Central Register of Residence (CRR) which started real operations in March 2002. Since then, all Austrian communities have been registering residence data of persons living in Austria in the CRR online, (with electronic data stored centrally but administrated/updated decentrally). This makes it possible to obtain the complete residence details of a person in Austria by a single mouse click, including contact address in the case of prisoners and homeless people. Before the CRR, all residence data were recorded and administered "locally" in the respective communities partly as hard copies and partly electronically by different systems. The address data of the CRR are linked with the Register of Buildings and Dwellings as well as the Register of Addresses. This ensures that the CRR processes only existing data on addresses, buildings and dwellings (including GEO coding) and that all changes (e.g. re-Naming of a street) are done automatically.

The CRR is the basis for many tasks of the public administration such as the Electoral Register, the population census and, last but not least, the electronic Citizen Card. We have to look very neutral on technology this is the reason why the electronic citizen card function in Austria is available for smartcards (all bankcards, student cards, lawyer and notaries membership cards, health cards and so on) as well as for mobile phones.

In cooperation with the Austrian Parliament, the entire legislative process (from the initial draft, through to the decision and until official publication) is now carried out electronically. Austria is the first country in Europe to have set up such an electronic legislative process, with uniform layout of texts based on common models and guidelines, as well as laying down a clearly defined electronic workflow.

e-Government in the information age gives rise to a new kind of relationship between citizens and the authorities. Public administration is shedding its bureaucratic skin and transforming into an efficient and service-orientated provider of services. The outmoded and fragmented administrative structure is replaced by a model of cooperative administration.

Some of us are living and working already in an information society but the goal is to develop an information society for all. In Austria more than 60% of the population and more than 90% of companies have already internet access. In 2006 around 60% of the Austrian internet population are using e-Government information and nearly 45% are doing e-Government fully truly online. In Austria the government has concluded cooperation agreements with the business world so that the use of government websites at WLAN-Hotspots or Multimedia-Telephone stations are for free for all. This makes it possible for everyone to have access to information, both in rural regions and urban areas.
PITER: the new Regional ICT Plan in Emilia-Romagna

Gaudenzio Garavini
Region Emilia Romagna, Italy

The road that leads to Lisbon also includes a very important stop in Emilia-Romagna: that is the briefest way to describe the strategic direction and practical programs specified in the new Regional ICT Plan for Emilia-Romagna (PITER). The plan, which deals with the 2007-2009 time frame, is the principal contribution that the Emilia-Romagna Region will be making over the next few years toward reaching the ambitious goal set in 2000 in Portugal: to turn the European Union into the most dynamic and competitive economy in the world by 2010, by taking advantage of the opportunities and benefits offered by the information society.

The new Regional ICT Plan will involve over 200 million euros worth of investments, which will be made within the broader strategy of promoting innovation that has been pursued for the past decade or so. Thus far, this strategy has emphasized two key words: infrastructures and services. The first key word refers to digital communication networks; in particular, to the Lepida fiber optics network in Public Administration offices in Emilia-Romagna, and R3, the mobile digital radio network for regional emergency services. Thanks to these networks, all municipalities in Emilia-Romagna are now connected to a single high-speed digital pipeline.

On the other hand, the services implemented to date are mostly the result of numerous e-Government projects that have been completed over the past few years, some in response to national policies in this field. Many of these services are already being used by a significant number of citizens and companies. From now on, such services will increasingly represent the “extra” offered by digital infrastructures.

The results produced by preceding regional plans on innovation put Emilia-Romagna at the forefront in this field, both on the Italian scene and across the Continent. Even so, surveys show how work still needs to be done in order to ensure a more uniform expansion of innovative systems.

Some areas (particularly those in the mountains and/or with a more rural character) are struggling to keep pace with urban centers that are progressing more quickly. In addition, citizens and companies are not taking sufficient advantage of the potential that local areas offer in terms of digital services. For example, over the three months prior to the latest Regional benchmarking (2006) of public on-line front ends, only 16% of Internet users visited the websites of Public Administrations.

But it is mostly in the realm of interactivity that the highest growth potential is found. Although 40% of those visitors were looking for information and 23% downloaded forms, only 15% sent forms to local institutions and a mere 9% made payments. One of the causes of this lack of utilization is the overly fragmented range of services offered; although digital services are available, as shown on the table below on multichanneling, what is lacking is a “system” approach which would enable the services to be offered in integrated form to citizens and companies.
The new Regional ICT Plan is directed toward reaching the basic goal of providing a more uniform and more integrated range of digital services. Thus, the two lines of innovation that have been promoted separately up to this point must now be unified. Networks must become the standard “natural” platform for delivering digital services of uniform quality throughout Italy.

As was mentioned previously, this system will be sustained by the robust digital framework created by Lepida. But it will also be more complex than that. The basic aspects of implementing technological infrastructures will be associated with equally basic changes in organization and culture.

For this reason, the new Regional ICT Plan goes beyond the mere technological side and, in doing so, uses the term community network to embrace all the levels of innovation (within technological, organizational, procedural, cultural, and other contexts) which local institutions will be called upon to reach. The term also denotes the standard governance adopted by the Plan; i.e., the term refers to the complete set of existing local institutions and the desire for managing development and innovation projects in a coordinated, mutual way. The strategy is thus to create economies of scale, higher levels of uniformity and local unity, common planning for sharing technological architectures and platforms, and a “system” approach to managing financial resources.

More concretely, this will occur through the action of a permanent committee providing direction and coordination with local institutions, which will involve the continuous sharing of goals and strategic projects in the local area. Its activities will be supported by a special scientific committee composed not only of technology specialists, but also of
economists and sociologists to underscore the fact that innovation is not merely a question of engineering. A company with the same name as the Lepida network (which is provided for by the regional law on the information society) will then translate the directions indicated by the Plan into executive projects. Finally, a highly qualified Center will support the integrated development of Lepida and of the services it implements.

Lepida and R3 will be much more than simple high-speed digital communications paths. Instead, they will be configured like a nervous system that enables local institutions to act more and more like a unified entity which citizens and companies can rely on. It is no accident that the Regional ICT Plan places enormous emphasis on the creation of a digital back office shared by all institutions.

In this way, “classic” interconnection services will be supplemented by communications solutions offering enhanced added value. Among these is Voip digital communications technology, which will be extended to all government offices in the Region in order to reduce today’s high expenses for traditional telephone service. Also, common services of identification and of access to the document databanks of local administrations will be implemented, along with various solutions for cooperation in developing applications. The goal to be reached is interoperability, an essential prerequisite for ensuring the concrete realization of a digital Public Administration that serves citizens and companies alike.

The initial results expected by actualizing the programs and goals in the new Regional ICT Plan will guarantee what the document itself calls “standardization of quality.” All local institutions - wherever they are located and whatever their “specific weight” within their relative administrations - will have to offer uniform performance, which will have the beneficial effect of providing the local area with greater balance and unity. In this regard, the Plan specifies a “minimum level of communication”; i.e., the need to identify a series of services available to everyone. Only in this way can the term “digital citizen” have the same meaning in Bologna as it does in municipalities in the Apennine mountains.

The digital infrastructures completed over the past few years will also have important effects on the availability of hardware in the struggle against the digital divide. In fact, the extension of Lepida within the Region will permit broadband services to reach areas that would not otherwise be tempting to the principal players on the market.

A digital Public Administration means more than interoperability among back offices. Nevertheless, interoperability is a revolutionary transformation that is useful to the basic purpose of providing better service to citizens, associations and companies, and of strongly asserting their central importance. Multimodality, mobility and convergence are the three watchwords that get things moving; that is, they turn statements of principle into completed practical projects.

Multimodality is meant as the opportunity for the public served by Public Administrations to take advantage of services and assistance through the means, in the forms and at the times that are most convenient to them, but without compromising the quality of the services. In this regard, and also to combat the digital divide, the Emilia-Romagna Region and local institutions will proceed with and reinforce the Lepida TV project, whose purpose is to provide information and services using terrestrial digital technology.
The intent is to combine the enormous potential of the Internet with the simplicity and familiarity of television, which is the preferred medium of those who are normally excluded from using the Web.

The central importance of the citizen is also asserted by recognizing that society is increasingly made up of “nomads” and “people in motion.” Therefore, the Regional ICT Plan places great importance on providing services using mobile communications tools. In doing so, it seeks to apply the results of research projects that were financed under the preceding Plan and developed in close cooperation with universities, research institutions and companies in the local area. These projects involved - and will continue to involve - a number of advanced concepts such as the development of broadband multimedia systems, the creation of ambient intelligence applications, the development of platforms and content for e-Learning, and the elaboration of solutions that aid industrial districts and organizations interconnected by networks.

Convergence is intended as a synthesis of the scenarios described above. Like the back offices that will be integrated to ensure that the unified digital Public Administration functions effectively, on-line front ends will be conceived as elements that relate to citizens and companies as a single system regardless of the individual pathways involved.

An extremely vast and varied range of digital services will be offered to the millions of citizens who live in or visit the Region. In this context of heightened general attention to the citizenry, the new Regional ICT Plan will focus in on health care services. The goal is to create an integrated network of assistance that further asserts the absolutely central role of the citizen/patient. This network will be created by developing new procedures for sharing clinical information among the various providers and institutions in the health care system (family physicians, pediatricians, specialists, clinics, local health care agencies, etc.), and by implementing projects whose purpose is to improve the network used for handling appointments and monitoring waiting lists. The final frontier in this area is the digital medical chart, a “folder” that will contain the complete clinical history of the citizen, who will no longer be forced to collect medical reports, prescriptions and test results. From now on, these documents will be handled automatically so that the relative information can travel more quickly, thus lowering the time required to deliver services and thus providing care that is more effective and efficient, since doctors and other health care providers will be able to access the network at any time and obtain the entire clinical history of each citizen.

As far as innovative applications are concerned, the first experimental telemedicine and teleconsultation projects will be expanded so that care can be given to patients remotely and through the joint efforts of multiple providers.

The creation of an information society that is truly within everyone's reach also involves projects that go beyond the realms of infrastructural development and implementation of services. The Emilia-Romagna Region is making a special effort to combat the knowledge divide, a phenomenon that is analogous to - but not identical to - the digital divide. The knowledge divide is the limited ability to take advantage of opportunities offered by the digital revolution, not because of a lack of tools and/or material resources, but rather due to a poor level of critical knowledge regarding the importance of the innovative processes that are currently in progress.
Thus, the Emilia-Romagna Region will make a special effort to promote programs and projects whose purpose is so-called e-Adoption, in order to raise the consciousness of companies in particular - but also of associations and private citizens - concerning the need to invest in technological innovation not only by purchasing the relative tools and solutions, but also by developing the ability to use them in a way that is in step with the challenges posed by today’s “network society”.

Finally, following the direction indicated in the three-year plan will necessarily be associated with the equally important practice of gradually evaluating what is being created. The Emilia-Romagna Region and its entire group of local institutions will renew and expand their efforts in this regard, both by constantly monitoring the progress of the projects specified in the new Regional ICT Plan, and by promoting a broader and more detailed quantification of the information society.

Such monitoring, which will affect the individual courses of action into which the Plan is broken down, will enable a careful eye to be kept on the status of projects in progress and will be useful for identifying any changes that must be made during their execution.

Quantification of the information society is also intended to broaden knowledge of the current state-of-the-art in digital innovation in the Region and, in doing so, to track correlations (obviously not the same in both directions) between the planning that has been carried out and the more general picture of developing an information society. This will be accomplished through increasing integration of the analyses and investigations that have been performed thus far on the regional level. Particular attention in this regard will continue to be paid to the practice of benchmarking. The “point of re-departure” implied by benchmarking will be the European project known as UNDERSTAND (“European regions UNDER way towards STANDARD indicators for benchmarking information society”), which will be jointly financed by the European Union, coordinated by the Emilia-Romagna Region and implemented in 11 Regions of 7 EU member countries.

Up to now, the project has led to the development of quantitative methodology in 4 key areas: the use of the Internet by families and companies, the availability of broadband service, the development of e-Government, and the expansion of technological innovation among companies. This methodology will continue to be applied over the next few years and be extended to comprise several new parameters identified in the latest Regional ICT Plan, with health care and instruction leading the way.

A “system approach”, consultation, investments, integration between digital infrastructures and services, interoperability, quality standardization, and reuse. And also digital services, the central role played by the citizen, multimodality, mobility, convergence, electronic health care, and interconnected schools. Along with e-Adoption, e-Learning, R&D, monitoring and benchmarking: these are the principal key words that will contribute to the creation of a community network of Public Administrations in Emilia-Romagna, in accordance with the direction and strategies outlined in the new Regional ICT Plan.

Thanks to its fundamental support in combating the digital and knowledge divides and in creating the best opportunities for becoming major players in the information society, the Region will enable citizens, companies and associations in Emilia-Romagna to proceed at a fast pace along the challenging, yet fundamental road that leads to Lisbon.
**Developement of the Information Society in Liguria and the new Regional Law L.R. 42/2006**

Emanuela Davini  
Region Liguria, Italy

**Abstract**

Liguria wishes to be a region where people like to live, learn and work and which is an attractive place for companies and individuals to undertake initiatives and invest.

Its goal is to reach a government that provides high-quality and low-cost public services. Taking into consideration the small size of the territory and the small population (just over 1.8 million inhabitants) it is necessary that all levels of public administration that is municipalities and provincial and local levels, as well as the civil society and the business world, cooperate to achieve this purpose.

E-government must be an integrated and continuous way of providing services to citizens, enterprises and other government services, fully using the new information and communication technologies. The public services have to create an environment where all of the actors can largely benefit from the opportunities the information society can offer them.

**Integration**

In this drive to increase the diffusion and the quality of public services the eGov Law is going to play a key role.

Liguria Region legislation developed up to now was aimed at facilitating the provision of on-line services to a greater number of citizens.

Approved Law number 42 of 18th December 2006 goes further by setting up SIIR, which is an Integrated System for the management of ICT in Liguria Region that involves the whole public administration system. Basically SIIR implementation is going to change the way the government provides services to its citizens-clients at four levels:

- **Services will be quicker:** no more useless travelling, waiting times, and overlapping administrative formalities because feedback can be given online.

- **Services will be more user-friendly:** citizens and enterprises will have continuous access to the public services which will be more customized.

- **There will be fewer contacts:** the data of citizens and enterprises will have to be collected only once, there will be a maximal data exchange between public services and the information will be managed proactively.

- **More transparency:** citizens will be more involved in the decision making process, they will be able to communicate directly with the right public services and will have access to the personal information the public services have on them.
SIIR System

SIIR, that is an Integrated System for the management of ICT in Regione Liguria, sets up a new strategy concerning ICT supply and communications among all Ligurian medical agencies and instrumental bodies (benefiting from regional funds).

In the manner provided by this Law:

- The Steering Committee represents all the Bodies participating in SIIR, and run the development of the system.
- The Technical Secretarial Staff and Negotiating Tables supporting the Committees work.
- Datasiel S.p.A., the regional public company dealing with data processing, which is a technical support for all the sticking bodies to SIIR, contractual obligations between SIIR participants and Datasiel S.p.A. will be regulated by a specific Agreement (Convenzione Quadro).
- SIIR bodies working in the data processing system continue to do their job on the grounds of the managerial choice taken before the constitution of this system.

In order to carry out the development of the SIIR integrated system, Liguria Region involved all Ligurian PAs and approved specific tasks coherently with “Programma Triennale”, collecting the whole government interventions implemented by Datasiel in accordance with the “Convenzione Quadro”.

In this way Bodies participating to SIIR have to operate according to the conditions regulated in this Agreement between Liguria Region and Datasiel SpA.

Today there already exists a web site foreseeing a unique identification key for citizens and a unique identification key for SIIR organisations: http://siir.regione.liguria.it
Why Adopting SIIR?

Adopting SIIR will enable to rethink the providing of public services in Liguria according to these principles:

- Citizens ask for a global solution to their problems.
- It is useless to ask for already available data over and over again.
- Administrative formalities should be reduced to a minimum.
- Ligurian PAs and governments should share mutual data.

The priorities for all SIIR System adherents are: integrating the information and communication networks through cooperation agreements and simplifying the procedures for the “clients”.

In order to harmonise the legislative and administrative frameworks between public bodies Regione Liguria has integrated the sources and information centres, allowing interconnections and the integration of back offices. In this way the instruments for privacy protection will be strengthened and costs reduction inside Public Administrations will be greatly favoured.

Conclusion

To conclude this presentation of the philosophy of e-Government implementation according Law 42, we cannot forget the digital divide issue. There is no doubt that the Law conceives this requirement as a prior duty, so as well as SIIR develops, it is still necessary for Liguria Region to promote the interactive use of information and communication technologies and to facilitate communication with its numerous and various mountain municipalities.
Regione Molise “e-Government Plans”

Walda Viola
Region Molise, Italy

The plans that “Regione Molise” has started in matter of “e-Government and Information Company” represent the performance of the strategic lines defined in the STM and APQ plans.

Directory Plans “POR Molise”

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<thead>
<tr>
<th>NAME</th>
<th>ACTION</th>
<th>DESCRIPTION</th>
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<tr>
<td>Center Services Infrastructure</td>
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<td>Infrastructural services for net emergency</td>
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<td>A.1.2.2</td>
<td>Infrastructural services for net interoperability</td>
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<td>Infrastructural services for net applications</td>
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<td>Realization of one technological platform for e-Learning’s services distribution</td>
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<td></td>
<td>A.4.1.1</td>
<td>Implementation of the instruments for integration and the interoperability of local and center Public Administration informative system</td>
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<td>A.4.1.2</td>
<td>Realization of “Regione Molise” unitary informative system</td>
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<td>Multichannel Integrated Portal</td>
<td>A.5.1.1</td>
<td>Implementation of the territorial integrated Portal for the access to the services of the local Public Administration</td>
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<td></td>
<td>A.5.1.2</td>
<td>Realization of one web site containing Region and Local Public Administration laws, norms, deliberations and decrees</td>
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<td>“Regione Molise” Net</td>
<td>A.6.1.2</td>
<td>Publics contracts Portal implementation</td>
</tr>
</tbody>
</table>

- «Regione Molise» Net (extranet-Intranet)
- Broadband wireless network (with regional cover)
- Automated systems for the documentary flows’ management
- Facilities for the purchase of computer’s equipments
1. With the project of the New “Regione Molise” Net (RRM), the Region intends to give continuation to the efforts already undertaken in the last few years with the realization of the current IP Network which interconnects on the territory the health authorities, the hospitals, the Agricultural Zone Offices, other area offices distributed on the territory and other Public subjects and private. RRM, with the functional and territorial extents expected in the project, has the aim of creating the infrastructural floor from a side for the grant of all the services destined to the various actors of the information company (citizens, enterprises and uneasiness areas), from the other one a net of services to value added to increase economy and territory development, then as expected from the STM Plan. The new “Regione Molise” Net constitutes in definitive a net expansion at present operating, in terms of territorial diffusion, of functions and services and of transmission capacity.

2. The project called Center Service Infrastructures has the purpose to realize one elaborating infrastructural platform usable by citizens, by the local government units and the enterprises. It aims to integrating the current elaborating center placed at the “Molise Dati S.p.A.” in order to make up an able operating structure of aggregate and integrate the services telecom, applicatory, informative and of support for all the corporations of the regional P.A. and make the control, the management and the monitoring of “Regione Molise” Net (RRM).

3. The project named Realization and Management of a broadband wireless telephone network has as an aim the realization of a telephone network, with regional covering, what, using the WLL PMP technology and license, made available to the Molise Area through the assignment at its company “Molise Dati S.p.A.” ensures "broadband" connectivity on the whole regional territory.

4. The project Multi-channel integrated Molise Area Portal intends to be realized an infrastructural platform that allows to accessing to supplied services from local and center government units. The objective is to implement an unitary system of access and use of services supplied by the public authorities present on the territory of “Regione Molise”, built on an infrastructure of aggregation and integration of the telecom services of the public ones Administrations which will lean at the Service Centers, made up from a managerial infrastructure of cooperation, based on data processing systems for the administrative data integrated management.

### Directory Plans “APQ”

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CODE</th>
<th>ABBREVIATION</th>
<th>PROJECT’S NAME</th>
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<tr>
<td>Infrastructure</td>
<td>SI001</td>
<td>RRW</td>
<td>Regional Wireless infrastructure and security center</td>
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<td></td>
<td>SI002</td>
<td>CIPIPAC</td>
<td>Data processing crater area PIP wiring</td>
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<td>SI003</td>
<td>SPC</td>
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<td></td>
<td>SI004</td>
<td>RRMG</td>
<td>General medicine doctor net</td>
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<tr>
<td>Basic services</td>
<td>SI005</td>
<td>CAPSDA</td>
<td>Advanced centers of public digital service access</td>
</tr>
</tbody>
</table>
### Basic services

<table>
<thead>
<tr>
<th>SI006</th>
<th>SVICRICID</th>
<th>Development and enterprise net consolidation by connectivity and Digital Infrastructure</th>
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<tbody>
<tr>
<td>SI007</td>
<td>AICTISC</td>
<td>Enterprise and civil company ICT formation</td>
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<td>SI008</td>
<td>IAGR</td>
<td>Administrative innovation and regional governance</td>
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### Applicatory Services

<table>
<thead>
<tr>
<th>SI009</th>
<th>CST</th>
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<td>SI010</td>
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<td>SI011</td>
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<td>Integrated informative services for the territory</td>
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<td>SI012</td>
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<td>Specialized telemedicine services</td>
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<tr>
<td>SI013</td>
<td>SAXB</td>
<td>Advanced Systems for the social family connectivity</td>
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<td>SI014</td>
<td>SAXP</td>
<td>Advanced Systems for the social center connectivity</td>
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<tr>
<td>SI015</td>
<td>SAXI</td>
<td>Advanced Systems for the social Italian connectivity</td>
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<td>SI016</td>
<td>ISSD</td>
<td>Instrumental implementation and subsidies for didactics</td>
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<tr>
<td>SI017</td>
<td>ISWR</td>
<td>Regional web site implementation</td>
</tr>
</tbody>
</table>

**SI010 – SVA - Environmental supervision system**

The project has as aim to create on the territory adequate conditions organizational, collaborative and instrumental, which can allow all the subjects persons concerned to perform at best its functions, in the general interest of the tutelage of the safety of the citizens, of the territory and the environment. In this context it sets up himself like an information interconnection system and the environmental data at regional and interregional level of integration and processing of such information at the purposes of the territorial planning and the environmental management.

**SI011 – SIIT - Integrated informative services for the territory**

The project aims at approaching the informative sources to the residence place of the user, above all in connotate areas from the very small dimension council presence, as in the case of Molise. The activation of a series of territorial services is foreseen through the realization of specific applied inside a GIS model integrated and placed at the Service Center for the Environmental Supervision, tight integrated with the present elaborating infrastructure at the Service Molise Area Center, placed at the Molise Dati S.p.A.

**SI012 – STMP - Specialized telemedicine services**

The project is oriented to bridge the existing difference in the regional world on the digital culture in particular starting a formation plan for the sanitary operators of Molise...
through the design and the realization of formative ways oriented to spread the data processing culture in the communities sanitary and to promote and support programs of education continues in medicine, in consistency with the strategies of the Health Ministry.

**SI013 – SAXB - Advanced Systems for the social family connectivity**

The project has the aim of providing the citizens of the area of tools and basic knowledge for the ICT technology diffusion, also trying to relate the computerization level in the various ones Molise areas. This objective will be realized according to two actions: families will be from a side economically supported in the PC acquisition, from the other one initiatives will be promoted for the formation of the citizens about the use of the data processing tools.

**SI014 – SAXP - Advanced Systems for the social center connectivity**

The project has the aim of building a net of Multimedia Centers to increase the value of the capacity of aggregation and center socialization organize, to project the chances of Company of the information about a mass stair, investing the social classes in special way less well-to-do and the weak subjects most exposed to digital divides.

**SI015 – SAXI - Advanced Systems for the social Italian connectivity**

The project expects the realization in an infrastructural support for the action realization planning SAXB and SAXP. This support takes shape himself with the distribution in the areas of Noon of 250.000 Smart CNS Card and services correlated, about 5.000 are destined at Molise. The realization of the total project is charged to DIT.

**SI016 – ISSD - Instrumental implementation and subsidies for didactics**

The relative project has the aim of providing the school of Molise, and especially the placed ones in the area of the so-called "seismic crater", of tools and technological services for some didactic activities management. The project expects the implementation of multimedia didactic halls, and the use of e-Learning functionality to increase the services and improve the didactics effectiveness.

**SI017 – ISWR - Regional web site implementation**

The project has as objective the realization of an integration of the regional web site, both in terms of information contents and of offered services. It has tight bound to the project place current, concerning the Multi-channel Integrated Portal.
Piedmont broadband initiatives

RUPAR Project service for interchange documental
Region Piedmont, Italy

Increased use of telecommunications networks and the growing demand for services is making the spread of network infrastructures throughout the territory a real need. Broadband has become an essential ingredient in Piedmont's competitiveness and one that could impact heavily on the future of the local economies.

WI-PIE is the regional government programme created to set up a widespread broadband infrastructure, provide Piedmont with a fast connection, spread innovative services for economic, social and cultural growth and development, and reduce the digital divide in more disadvantaged areas.

This extensive detailed programme, and the only one of its kind nationwide, aims to provide companies, individuals and the worlds of research and PA, new impetus by offering space for ICT operators and creating transfer opportunities for regional, national and international Internet traffic. It represents an ambitious initiative that can benefit both public and private sectors alike and provide positive returns for the entire Piedmont system.

In short, WI-PIE is where services targeted at public administration, the private sector and educational institutions can co-exist and share the same infrastructure; all based on a pre-competitive, de-localised approach that allows the entire system the same development opportunities.

The programme follows 7 strategic lines of action

The first strategic line works through the Information Society Observatory to document the penetration development of ICTs and service availability in the social and economic environment and to supply support tools for project policy-makers and governance.

Infrastructure projects are a priority and provide the framework for other initiatives to develop around.

The main infrastructure, completed November 2006, is the Backbone (strategic line of action no. 2). This is a 900 km-long optic fibre ‘digital highway’ with 11 access nodes dislocated in the main regional centres. Among the Backbone components, there are:

- Internet Exchange: regional extension of the network infrastructure created by TOP-IX to offer broadband solutions to the entire Piedmont manufacturing system, spreading broadband exchange, increasing operator competitiveness and helping Internet Service Providers to grow and develop.
- The Innovation Platform: made available by TOP-IX, where small and medium-sized enterprises can “test” ideas and projects before positioning them on the market.
- The local PA network: the current Piedmont PA network (RuparPiemonte) will be redefined, based on a “distributed” logic and design, by the end of 2007.
The **Facilitating Access** strategy looks to complete those infrastructures that are already finished or close to being finished in the main cities and locations, and guarantee connection for all bodies and concerns throughout the area.

The diffusion of metropolitan networks (MAN – Metropolitan Area Network) provides several advantages: extending the overall area that can be reached by network services, creating a better link-up between public and private bodies, closer working relations between companies and increased regional investment by market operators.

For reasons of morphology and geographic layout, the digital divide is particularly apparent in Piedmont, with no ADSL connection for about 1,000,000 citizens and 125,000 companies across about 900 municipalities.

The **Wireless Territory** strategy aims to supply broadband to all those geographically disadvantaged areas (rural and mountain areas).

Creating a highly-developed territory also means greater international visibility for regional network resources. The **Internationalisation** strategy aims at high-speed interconnection towards points with a high concentration of Internet operators and resources, both in Italy and abroad.

Another strategic target here is that of generating a strong sense of ‘community’, offering a link-up tool – and resulting benefits from connection - between public and private bodies throughout the Piedmont system. TOP-IX is the main ‘meeting’ point and cooperation tool for developing common actions and sharing experiences, as well providing a natural channel towards the European Information Society.

The **Research, School and Academic world** strategy is aimed at the world of research. Main goals include:

- Spread and promote WI-PIE use, increasing the use of the interconnection platform in schools, academic institutions, public research centres and private industrial research bodies throughout the region.

- Define pilot community networks in the area and support the testing and trialling of new emerging technology.

- Use WI-PIE as a research project platform.

The **Broadband Services** strategy seeks to develop new services by taking advantage of broadband potential and making technologically-innovative communication tools available for common use (voice, videoconferencing, streaming, VoIP), through joint public and private initiatives.

It also plans for technological models to sustain multimedia communication (such as distance-learning, home working, etc.); systems not restricted by the type of terminal used (e.g. laptops, palmtop computers, third-generation mobile phones, fixed or radio connections) to develop new forms of work organisations; and geographical location services, useful for multimedia tourist guides or for distributing information.
The regional administration is responsible for setting up the project through a Work Group. The following parties will work alongside this group: CSI-Piemonte, in charge of technical projects, TOP-IX for relations with the business world, IRES Piemonte (Piedmont Economic Social Research Institute) in charge of coordinating Observatory activities, and CSP for issues concerning research, academic world and schools.

Local administrations have been required to organise themselves into provincial work groups and coordinate local territorial projects. Universities, research institutes and bodies and Piedmont businesses have also been involved in implementing the project.

One of the main merits of WI-PIE is to have created favourable conditions for the spread of broadband in Piedmont and an ideal context compared to other investment areas in which to support operators. Based on this, an agreement protocol was signed with Telecom Italia in 2006. This then led to other actions aimed at completing the WI-PIE design. By 2008, almost all the regional territory will have been supplied with broadband infrastructures, technology and services.

The agreement, the first of its kind in Italy, has various objectives: favour the spread of broadband; increase the range of broadband services; finalise the network infrastructure so far completed; and launch new service development projects (priorities include social, health and welfare services, transport, logistics, citizen and territory safety and security, the development of e-Government and e-Democracy and training for citizens). Telecom Italia will supply almost the entire area with broadband services. These will also be made available to other telecommunications operators and providers, as well as to citizens, businesses and public administrations.

The regional administration will increase investment aimed at developing accessible and usable online content and services. This will also allow good returns on investment for other operators who can take advantage of increased broadband availability. In order to achieve total area coverage, the Piedmont regional administration has launched Reduce Digital Divide, a two-year project (2007-2008) which aims to accelerate the implementation of forecast WI-PIE actions by turning to innovative solutions studied and adapted for each specific situation and working in partnership with local administrations and market operators in the region.

The project is targeted those municipalities which are not covered by the Telecom Italia agreement. Of these, 73 have been supplied with wireless solutions and these services are now to be extended to private citizens. The remaining 222 are still in the initial stages. The project, however, is not limited to merely extending the network to those areas. It seeks to guarantee equal conditions of access to all potential users, not to mention the same development potential.

NOTES
1 TOP-IX – Torino Piemonte Internet Exchange is a non-profit consortium founded in 2002 with the aim of creating and managing a NAP (Neutral Access Point) for Internet traffic exchange in the North West. Since 2005, TOP-IX has accompanied its original mission with activities aimed at promoting and developing innovation projects to spread broadband and Internet use.
2 CSI-Piemonte is a consortium made up of Piedmont public bodies. Since 1977, the company has promoted innovation in local public administrations via the use of cutting-edge ICT tools and technology. As a natural meeting point for research centres, local PA and private business, CSI aids dialogue and communication between administrations, simplifying their contact with local businesses and research bodies and strives towards the goal of extending the benefits of the Information Society throughout the region.
3 CSP is responsible for PA innovation and research in the field of Information Society technology in Piedmont. CSP is active at a regional, national and international level, developing applied research activities, partnership projects and agreements with public bodies, local administrations and large private businesses.
Promoting e-Government and the Information Society. The Veneto Region action model: from e-Inclusion to e-Diffusion

Region Veneto, Italy

Introduction

It is some years now that the Italian Civil Service has been pursuing modernisation policies –through actions and investments – falling under the ‘e-Government’ category.

A number of surveys have shown how citizens request that Public Administration provides quality services, cuts waste and inefficiency, respects citizens’ rights and sustains businesses’ competitiveness. Based on these requests, the Veneto Region has created a specific division with the mission of fulfilling these objectives: the ‘e-Government Unit’.

The ‘e-Government Unit’ of the Veneto Region - a team working under the IT Department of the Veneto Region - is specifically devoted to cooperate with all Veneto Local Authorities and the civil society in general, to exploit technology as a means to improve the quality of services provided by the Civil Service and to cut Administration costs.

Basically this means facilitating technology transfer to boost competitiveness of the local economy focusing on infrastructure development and quality services. Having in mind the recommendations that have been issued also by central authorities, the objectives of this modernisation effort are:

- Increase the quality and accessibility of public services for citizens and businesses.
- Increase Public Administration efficiency and, as a consequence, reduce costs.
- Increase citizens’ participation in a more efficient decision-making process.
- Simplify Administration procedures to reduce the burden of red tape for citizens and businesses.

In such context and with the above aims in mind, a development model for e-Government and the Information Society was created. On the basis of this model, programmes and actions were planned and then carried out through specific projects.

This article will describe the main components of this model and will also report on a real case in which such technology transfer was carried out.

More specifically the development process of the Belluno area (north part of the Veneto Region) will be examined through the description of the “Includendo” programme and of its follow-up, the “Diffondendo” programme.
The model

The action model for the promotion of e-Government and the Information Society adopted by the Veneto Region is centred on the development of the target area and focuses on three main subjects:

a) Defining the life cycle of the development process.
b) Inclusion (open, participatory, shared).
c) Technology transfer.

a) The life cycle of the development process

The process to produce innovation through technology can be subdivided into two main stages: the development phase and the operation phase.

The development phase deals with those activities leading to the selection and the execution of specific actions. This phase is further subdivided into two sub-phases: the preliminary phase (a1) and the execution phase (a2).

The first sub-phase identifies the process to be followed to define and select projects while the second one identifies the necessary process for successful project development.

It is often the case that innovative technology projects are basically oriented to the exploitation of the best technology. However, in some cases, the sustainability of projects is underestimated and, as a consequence, it may happen that excellent technological products are available but are hardly useful or usable.

The operation phase is set to solve this issue investigating the process and the activities that are needed to maintain and develop, for example, a portal, in the phase that follows its release (sustainability). The operation phase is further subdivided into two sub-phases: the management phase (a3) and the (portal) development phase (a4).

a1) The preliminary sub-phase

This sub-phase analyses the following issues that need to be taken into account in planning innovation actions:

Strategy consistency, that is to say comparing the project to the strategy guidelines adopted at European, national and local level during the feasibility study.

The aim is self-evident and concerns the possibility to integrate the project in some funding stream that might be available for a specific topic. It is quite difficult to describe a given code of conduct in this kind of analysis as circumstances vary considerably.

Suffice it to say that the compulsiveness of such scrutiny should bring about the consistency of the project aims at least with those set, at a higher level, by the proposing Authority.
**Policy consistency**, that is coordinating prospective initiatives with innovation policies adopted by the Authorities involved. This means making sure that the project being prepared conforms not only with strategy plans but also with technology policies (standards, protocols, guidelines) issued by participating Authorities.

**Project devising and final choice**, that is the process leading to the choice of the project that is more adequate to meet the objectives that, by the end of this phase, should be common. The process stems from the analysis of users’ needs.

Reaching a consensus on the basic objectives of the project proposal – before moving on to obtain the active involvement of the main actors - is the outcome of project devising. These steps are followed by a technical and cost description of the project contained in a document analysing also the rationale of the action. All these issues need to be investigated thoroughly in order to provide a firm basis to obtain the approval by the competent officers.

**a2) The execution sub-phase**

Once the basic objectives (aim), time schedule, quality of the product of be developed, necessary resources, have all been agreed by stakeholders and sponsoring bodies the execution phase may start.

This sub-phase draws from SMEs’ standards on project management to which it is possible to refer to for an in-depth description of the various steps and activities that make up the process.

**a3) The management sub-phase**

Once the project has ended – hopefully having satisfied sponsors, stakeholders and users – products and services that were the outcome of the project should go into operation. In this case ‘going into operation’ does not refer to the customary phase of standard software production in which after SW analysis, SW design and SW testing, the application is put into service.

In our context ‘going into operation’ has a much wider meaning and refers to the execution of the sustainability plan which should be included in the development phase of the project. It has to do with the formal analysis of processes, responsibilities and resources which are needed to carry on the project and to allow a successful follow-up.

**a4) The development sub-phase**

This sub-phase is about the study and analysis of the impact of services and the survey of users’ requests (those users who benefit from the products and services delivered).

This sub-phase is closely related to the preliminary phase as its main objectives are: service improvement, product improvement and project impact evaluation in the framework of high-level strategies and policies.
b) Inclusion (open, participatory, shared)

The second key element on which the action model for the promotion of e-Government and the Information Society is based is ‘inclusion’ which needs to be open, participatory and shared.

By ‘open inclusion’ I mean adherence of the model to standards and methodologies based on the principles of transparency and cooperation. Therefore, as it is the case with technology, the idea of ‘openness’ should extend to practices and processes that, thanks to participation, can bring added value to innovation processes.

To reinforce this concept two further words have been added: ‘participatory’ and ‘shared’. The term ‘participatory’ suggests the need to try and obtain the active involvement of civil society in general in the development process, while the term ‘shared’ indicates the need of receiving as large as possible a consensus by all the actors involved.

In actual facts this means performing actions targeted to involve the network of Public Administrations as I am convinced that the success of any innovation process depends on the conscious support by the key figures of civil society. More specifically the model includes the following categories: local administrators, civil servants, users.

Specifically oriented awareness-raising meetings - illustrating the rationale of the project, its aims and the expected results - are organised with local politicians. Based on these meetings a declaration of intent is drawn up jointly which will later become a formal document committing both the Local Authorities and the Veneto Region.

Once political consensus at local level has been reached the focus shifts to the personnel who will later run the system about to be developed. With the help of such staff, the most appropriate organisation model is identified for the case.

The aim of this organisation effort is to guarantee a constant and active involvement in the execution process by the people who will use the products and/or provide the services in the future.

The model also includes actions specifically designed to stimulate constant exchanges with and feedback by final users. Usually this takes two forms: a) setting up a focus group of ‘friendly users’; b) the promotion of services and a survey of users’ satisfaction.

The friendly users focus group is a group of people with an interest in contributing concretely to constant monitoring of results as they are produced, with a view to their improvement.

This small community of users is stimulated to contribute actively through specific actions that are included in the project plan.

Promotion is conducted through publicity campaigns on the press, on radio and TV, as well as through publicity events like information meetings, workshops, etc.

A key feature is the evaluation of results through the frequent distribution of questionnaires for a quick adjustment of development lines.
c) Technology transfer

The model for technology transfer is based on three different sectors: Information Technology (IT); Telecommunications (TLC); content/media.

IT transfer is not just a matter of creating an application or providing a service, IT transfer means sustaining the Local Authorities, increase their capacity to understand and then satisfy citizens’ requests with particular attention to the sustainability of project results.

New products and services will nevertheless be useless if appropriate technological infrastructures are not available to carry them. Therefore the model includes a survey of TLC infrastructures and in those cases where this is necessary and possible an appropriate action plan for TLC infrastructure building.

The technology cycle is completed with specific actions to create content. Content is necessary to stimulate demand and consequently effective and extensive use of the services with a good return on investment.

If the concepts behind the action model for the promotion of e-Government and the Information Society are:

a) The definition of the life cycle of the development process.
b) Inclusion (open, participatory, shared).
c) Technology transfer.

The methodology follows a set of guidelines containing specific operative directions on:

- The life cycle.
- (IT, TLC, Content) action lines.
- Impact definition and evaluation.
- Project development.
- Inclusion.
- Products and services diffusion.
- Monitoring of results.
- Development model.

A real case in which this model is being applied is the ‘Includendo’ programme run by the Veneto Region and currently in progress in the Province of Belluno.

Includendo

‘Includendo’ is an initiative by the Veneto Region, based on the above described model, and aimed at reducing the technology gap of the Belluno area in an attempt to stimulate competitiveness. The province of Belluno is a peripheral area of Veneto. Its geographic (entirely mountainous area) and economic (weak business and industrial sectors) characteristics make it the ideal target of a programme to build up competitiveness.

‘Includendo’ is a programme made up of three different e-Government projects co-funded by the Veneto Region, Italian central authorities, the European Commission.
The first project called ‘MyPortal’ is IT-focused. It consists of an innovative Internet portal for public service delivery with the special feature of being a comprehensive tool at the disposal of an entire community rather than of a single Authority.

The aggregating element - in addition to the administrative borders of the Province - was especially the sense of belonging to a single community and deeply-rooted cultural and social ties.

This is precisely how project results should be interpreted: not sheer technology to provide information and services to people but repository of Civil Service resources and knowledge. ‘MyPortal’ combines citizens’ inclusion in the community and Local Authorities’ inclusion in the net of Public Administrations. The portal is currently the official portal of 67 Local Authorities (Municipalities and Associations of Mountain City Councils).

While MyPortal develops and provides services through IT, the second and third project rely on Digital Terrestrial Television to deliver two equally fundamental elements to the target area: content and easy access through multiple-device connection (focus on content and media).

I believe that the content element is key for the success of infrastructure projects. Hardware and software platforms as well as networks are crucial but a community is encouraged to use technology as much as it can find interesting content in addition to useful services.

‘Veneto to Citizens’ (Ve2Ci) is the first experiment carried out by the Veneto Region on a Digital Terrestrial Television (DTT) platform. The objective is to experiment the entire work flow of DTT and to test the characteristics of this media not only from an application point of view but also, and probably above all, as an audiovisual media for Region-to-citizens communications.

The challenge of this second project is also to understand how a device so popular as TV might be put to use to reduce the digital divide of an area and of some population segments.

The third project of the ‘Includendo’ programme is: ‘Citizens interactive Television’ (Citizens iTV). Citizens iTV builds on the know-how developed with Ve2Ci (workflow, a number of technological components and also re-use of the network of relations).

The project target is to test service delivery on a DTT platform. The project is perfectly integrated in the programme, above and beyond mere technological content sharing.

The main feature of ‘Citizens iTV’ is to bet on multiple access to TV. Services and information are drawn from the project ‘MyPortal’. Local Authorities’ staff continues to use a web interface for services that are provided also on DTT while users can contact the Local Authority through Interactive TV if they have not a PC.

The last action of the ‘Includendo’ programme is ‘Nessuno escluso’ (Nobody excluded). Here the focus is on Telecommunications (TLC). The project is connected to the Veneto Region actions to promote broadband availability over the Belluno area.
‘Nessuno Escluso’ promotes IP digital television, satellite, digital terrestrial signal reception through infrastructure building. The project backs the development of IT and other Media as it is set to provide infrastructures connecting citizens’ households with different devices. Content is not neglected as well. ‘Nessuno escluso’ tries to introduce the concept of ‘community TV’. ‘Community TV’ means TV programmes very oriented to local needs, the local economy, people.

Finally the significance of ‘Includendo’ is not simply concerned with technological diffusion but refers to the expertise in defining a technological and organisation model outlining key processes and a set of guidelines that can be exploited to replicate the results of the programme in other areas.

**Diffondendo**

Diffondendo is the follow-up programme of ‘Includendo’. It is currently at a very early stage in which viability conditions are being investigated.

Diffondendo builds on the excellent results of ‘Includendo’, in brief:

- actions planned on the basis of a life cycle identified through the model described above.
- focus on sustainability of project results over time.
- services are part of the Veneto Region portfolio of services provided by the IT Department of the Veneto Region (e.g. MyPortal has been created for the benefit of the Belluno area but with a view to being delivered in application service provider (ASP) mode by the Veneto Region for any other Veneto Local Authority). Such local development strategy on the one hand maximises return on investment (in our case results on investment) and on the other concentrates available resources on key items.


‘MyIntranet’ is an offshoot of Myportal. MyIntranet is meant to be a cooperation tool for back-office staff. One of the most interesting results of MyPortal was that it created an opportunity for Local Authorities and their staff to meet and cooperate.

Building on the success of this initiative, the objective of MyIntranet is two-fold: on the one hand, spur such cooperation and as a result harmonise Civil Service’s procedures and conduct towards citizens; on the other hand maximise the communication effort produced by MyPortal by linking MyPortal directly to Local Authorities’ internal processes. In fact all too often, Civil Service portals represent a supplementary workload for staff. The challenge of MyIntranet is to become a tool of back-office processes automation which is integrated in routine working processes and as such does not constitute an additional task.

The second project called ‘Digital Content’ is closely linked to the development of Digital Terrestrial Television. The idea is to improve the capacity of handling and distributing audio-visual material by the Civil Service. TV broadcasting capability requires content to attract the audience and to stimulate the audience’s request of services. In this context the media (Internet in the lead) are increasingly using multimedia content.
The Civil Service exploited the communicative power of audiovisual material even before the advent of the Internet. ‘Digital Content’ is set to provide three elements to Local Authorities: a network infrastructure for large-size file exchange; an infrastructure to store and retrieve content; an editorial strategy for programme scheduling.

The third project ‘All Digital Community’ is the natural follow-up of the ‘Nessuno Escluso’ project of the ‘Includendo’ programme. Join together the economy and the Civil Service of the Belluno area to stimulate digital terrestrial television uptake is the objective of ‘All Digital Community’. The target is to anticipate digital switchover well ahead of the deadline set by the European Commission in 2012. The effort will be oriented to defining a model for small communities switchover that might be replicated at national level in order to meet targets set at EU level.

**Conclusion**

This article has tried to describe the action model for the promotion of e-Government and the Information Society developed by the IT Department of the Veneto Region. A use case (the ‘Includendo’ programme) in which the model was tested has also been presented.

Finally, the constant search for refinement was analysed through the description of the ‘Diffondendo’ programme, a programme currently still under consideration.

The spirit of this article is to share the knowledge gained by the Veneto Region. I hope this may arouse some curiosity and start a wider exchange of views on the dynamics of innovation through technology.
Etna in Web Project

Maurizio Consoli
ICT Responsible City Council of Catania, Italy

The main feature of Catania e-Government is its plan for an information system which triggered a deep evolution in the Administration’s ways and means for supplying services in the interest of both citizens and firms. The main steps of this information technology evolution are:

- A plan for computerization and technical adjustment of the Catania Municipality Information System.
- CATHANAE MIUR Projects.
- Etn@ in Web.
- Etn@onLine Project.
- Demos CT Project.

In September 1996 The Catania Municipality and other firms applied to the MURST (Ministero dell’Università e della Ricerca Scientifica) Call for the Scientific and Technological Research Networks Development Plan. It was the starting point of the CATHANAE Plan which aimed to create a multimedia telecommunication infrastructure for the experimentation of innovative services in Catania structured into 6 projects, grouped in clusters.
Projects financed by MURST, now MIUR, were started to interface the Administration’s many, different data banks and to carry out an experimental control system for traffic and pollution with a monitoring system instrument installed on a city bus.

The first servers were thus bought for the Direzione Sistemi Informativi (Information System Department) and the first information technology team was also created and trained.

The Catania Municipality has carried out two MIUR projects so far:

- Project 39 Cluster 22, “Net-Catania” “Hypermedia system for the maximum exploitation of information about Catania City”.
- Project 17, Cluster 25, “Ambiente” (environment) “Carrying out an integrated system to survey, monitor and control the city’s traffic and pollution”.

Both projects were successfully implemented with the creation of new instruments allowing citizens to obtain information and data they are interested in through the WEB (first project), and the integration and manipulation of the Administration’s geographic and environmental data and their visualization on the Internet (second project).

In June 2000 the City Municipality was not computerized with the exception of three centres for the data processing of salaries, of the Accounts Department and General Registry Office which, of course, aimed only to carry out a limited number of activities.

A new data bank network was immediately started which is now web-linked to 74 different Municipality Administration centres, scattered over the territory with a broadband network in HDSL/MPLS technology, at 2Mb/s speed. Some of these lines, thanks to a protocol with Catania University which has been financed by “Catania –Lecce” MURST are linked with optical fibre (23 km in urban area) at a speed of 2,5 GB, with consistent advantages for broadband and speed transmission.

At the same time a large purchase plan for personal computers with printing machines (more than 800) was started by public auction and later with CONSIP agreements. These were the basic elements and the starting points for a computerized system and the results were noteworthy.

The data network allowed, for the first time, for the remote high speed links with the Accounts Department and the General Registry Office, which in the meanwhile had been technologically updated thus greatly reducing the costs and improving the performance.

Thanks to the MIUR projects more rooms were finally allocated to the Information System Department to host 13 undergraduates working on the projects.

The experience acquired has encouraged the Catania Municipality, following up a Call published in the Official Gazette n. 78/02 of April 3, 2002, to start a project called Etna in “WEB” with the purpose of creating an e-Government Portal of the Catania Municipality for the Citizens and the Firms, in co-operation with Catania AUSL 3 (Health Care 3) and Catania University.
The above mentioned project, approved by the Innovation and Technologies Department, on 11/11/02 and co-financed for 2.660.000,00 euros by the Minister for Innovation on 14/11/02, has led to the supply of services to citizens and firms; using experimental and prototype models created for the above mentioned MIUR financed projects, it has triggered a strategic project continuity, without wasting research activities or economic resources and using the technological and organization solutions already tested.

<table>
<thead>
<tr>
<th>Etna in Web users</th>
<th>Admin.population%</th>
<th>Feasible users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catania Municipality</td>
<td>345.668</td>
<td>32%</td>
</tr>
<tr>
<td>Catania University</td>
<td>65.000</td>
<td>6%</td>
</tr>
<tr>
<td>Catania Health Care 3</td>
<td>1.069.315</td>
<td>100%</td>
</tr>
</tbody>
</table>

Etna in Web’s objective was the creation of a portal which is single and integrated access point for supplying services to citizens and firms through which users can, after a correct, safe identification, where feasible, autonomously gain access to the services which interest them by using internet, without queuing up at office counters.

The above mentioned portal, implemented by the Catania Municipality and co-financed by MIT, permits citizens and firms today, to obtain the following services on line.

**After identification**

- Taxes payment (ICI/fines).
- Application for ICI Variation and refund.
- Application for address variation and General Registration Office file visualization.
- Sole Counter for firms.

**Without identification**

- Guide to ICI estimate.
- Municipality Register visualization.
- Self-certification.
- E-learning.
- Forum.
- City council meetings on line and on demand.

**Reference territory context**

The co-operation with Catania AUSL 3 (Health Care 3) has allowed the activation of a counter network for the choice and revocation of family doctors / paediatricians from the municipality offices avoiding commuting trips towards central centres for 12.000 citizens, following the rule of “service for the citizens”.

Catania University, the other partner has implemented the service of Etna in Web from 30 totem posts scattered in various University Departments and posts in students’ secretariats located in other Province municipalities.
The specific objectives of the project were:

- A municipality internet data centre, that is an infrastructure (with suitable space and technological instruments) through which services could be supplied.

- The Catania Municipality e-Government portal, as a single and integrated access point for supplying services to citizens and firms, using new channels (Web, vocal portal and university technological kiosks) besides the traditional city office counter.

- Empowering a computerized protocol system and Administration documents management.

- Offering on-line services for citizens and firms such as: paying taxes, communicating changes, examining Public Administration Acts, and so on.

- Activating a Productive Activities Sole Counter, integrating its working in the portal to improve and empower the relationship between firms/professionals and the City Administration.

- Making and experimenting a system which might be used by other administrations in the area, for the supply of similar services, foreseeing a great chance of further utilization.

The results expected for the Municipality Administration would be the following:

- Easing red tape procedures, shortening the users’ waiting time.

- Fewer physical presences and shorter queues at Municipal office counters, as different access channels would be available to interact with the Administration.

- Fewer users at the post offices/banks to settle financial transactions with the Administration.

- Spreading information to users through innovative channels in the municipal and peripheral area.
• Improving the Administration's image for citizens and increasing trust in local institutions, focusing the Administration machine towards real users’ needs.

• Internal costs reductions and optimization of human resources and organization fluxes.

The desired objectives were all achieved in the estimated times and in particular:

• An Internet Municipality Data Centre has been created, on the fourth floor of the Information System Centre, from which e-Government Portal services are provided. Such a structure is ready to be used by other administrations, according to the present set of rules, experimenting the procedure with the Acicatena Municipality, as for the Protocol technological procedure use.

• The Catania e-Government Portal, www.comune.catania.gov.it, is working and placed at the IDC Municipality, also this software architecture can be extended for a new use of the components created.

• The computer protocol system and documents handling has been extended to the entire Municipality Administration, from January 1, 2004, according to the DPR 445/2000 and following changes and integrations. The number of documents processed were 63,962 in 2003, 186,839 in 2004, 237,747 in 2005, 261,943 in 2006, 49,8976 up to 7 March 2007, foreseeing 270,000 at the end of the year.

• The dream of allocating all the files with the Direction technological staff has been achieved. This has made the Administration more efficient through the abolition of paper register and the improved running of the Administration procedures, which have been computerized and connected to protocol and archive; it has also increased the visibility of Administrative action through instruments that have allowed a real right of access for interested citizens to the proceedings and related documents, in order to know their file position, the expected settling time and the name of the officer handling the procedure.

• Payment systems for ICI and police fines have been provided, besides communications of ICI variation, applications for ICI refunding and changes of address, all of which have been welcomed by the citizens.

• Access to Acts has been achieved through the on line Albo Pretorio (Municipal Notice Board) which is one of the most requested services, as is shown from the statistics logs.

• The Productive Activities Sole Counter has been computerized and integrated into the Portal to make the relationship between businesses/professionals and the Municipality Administration more efficient.

• Internet broadcasting of the City Council meetings has been started, an important tool of visibility and communication with citizens.

The results obtained are the ones expected, as the Etna in Web Project is a starting point for a different relationship between the Public Administration and the Citizens. The expansion of the Etna in Web Portal, as already described, has been achieved both with the Etn@online Project, financed by the Regione Sicilia, and with the re-use of
components created by other groups financed by the same source (POR Sicilia 2000-2006) and, finally, applying to a Call for the Re-use Catalogue creation.

A further very important result for the system’s evolution which had not been foreseen, has been the ability, of the technological group in the board, to internalize the knowledge and experience acquired with the project. This is proved by the application to the e-Democracy call and the co-financing, by the MIT, of a further e-Government project “demos.ct”.

As for the data network, the 74 municipal offices centres e-mail about 1000 users, visualize the internet site www.comune.catania.it with 3.000.000 accesses, where there are different sections linked with the City Council, Information for the Citizen, Museums, Libraries, Projects and so on, activities completely run by the board staff.

Among the activities of the Technological Services, the telephone service must be mentioned with the creation of an integrated telephone system which is a single access point for the Citizen to almost all municipal offices, leading to a rationalization of costs and structures, modernizing and widening services to the user, such as internet to schools and mobile phones.

The municipality intranet server is also available on the data network, completely renovated now in its graphic form. It informs all the staff with its 400.000 registered accesses, supplying the on-line telephone directory, service orders, and Management Control, fault tracing service and web publication service, both on line, and whatever information the Administration wants to impart, immediately and without wasting paper.

Among the latest achievements is the municipal SIT carried out with EU funding (2 by-processor Servers, platform: ARCINFO, SDE, ARCIMS, SQL database NT Server, software programs: building concessions), with the city mapping and the intranet and internet databank linking to the Register office. This instrument is of vital importance for data processing with reference to civil security and municipal taxes collection monitoring. Recently a new service has been implemented to single out the Administration road works areas.

Catania Municipality is the leader in the regional SIT project, promoted by the Assesssorato Regionale Territorio e Ambiente Dipartimento Urbanistica (Regional Land and Environment Council, Town planning Department) in the POR Sicila 2000-2006 project, measure 5.5.

As already mentioned with the “Etna in Web” project a machine room with more than 40 servers and network and security appliances has been implemented, called Internet/Intranet Data Centre, through which the Catania Municipality is supplying a technological protocol service to another municipality, and with the Etn@online project, sponsored by the Sicilian Region, measure 6.05, it will be able to broaden the service to 8 more sharing municipalities.

In fact Etn@online is a project in progress, in cooperation with Catania Regional Province financed as already said by the Sicilian Region, which aims to extend the Etna in WEB e-Government service to 8 more municipalities such as Adrano, Biancavilla, Paternò, Ragalna, S.M. di Licodia, Pedara, Mascali and Mineo.
Also other municipality associations among the 42 projects financed by measure 6.05 have already requested the re-use of the components developed in Etna in Web.

Another e-Government project in progress is Demos.ct, financed by “MIT,” this will allow, with the cooperation of Unione Italiana Ciechi (Italian Blind Association) and Codacons, a greater participation of citizens, with particular reference to those with a handicap, to the city’s political life.

The project goal is to add other channels, utilizing ICT instruments for the citizens’/associations’ participation in some decision-making phases, seeking the active involvement of minority groups, which might normally be excluded or hampered by normal administrative and institutional channels.
Innovation and e-Government services in Reggio Emilia

Fabrizio Boccola
City Council of Reggio Emilia, Italy

The Municipality of Reggio Emilia City Council has a strong tradition in the use of innovative channels for communication and distribution of services online. It is a city that invests on the values of civic culture, on innovation of services, on knowledge, on social relations, on integration and on environmental sustainability.

It also puts into effect programs to increase the knowledge of new technologies (within the programmes of the Emilia-Romagna Region), to reduce the difference between the persons who use them and those who can’t (“digital divides”), to manage and increase full realization of the society of information.

Therefore the development of e-Government on our territory follows two tracks: projects realized with other local administrations (with particular attention to cooperation with agencies of the provincial and regional territory) and political actions fielded by the municipal administration that are translated into plans for the reduction of the digital divide and in plans for the development of new technologies.

Plans realized in cooperation with other administrations

The planning and the development of the e-Government’s projects of the Municipality of Reggio Emilia have been due to the participation to wider projects to which other Public Administrations take part. This goes in favor of systemizing human and economic resources and to produce comparable services in neighboring administrations.

Piano Telematico Provinciale

The County Telecommunication Project has brought to realization six projects that interest all the municipalities of the County of Reggio Emilia and that take advantage of the infrastructural transmission net that connects the entire territory.

The peculiarity of this plan is that the planning, management and financing of all six of the projects within it is shared by all the 45 municipalities of the County: the municipalities, together with the County of Reggio Emilia, have organized work groups in order to realize every single website, sharing decisions and responsibility. Moreover, they are committed to guarantee the operation and the updating in time.

The municipality of Reggio Emilia has been project leader in the realizing of

- Payment Portal [http://pagamenti.pianotelematico.re.it](http://pagamenti.pianotelematico.re.it)
  This portal allows to pay Real Estate Taxes, fines, school taxes on line.

- Progett@re [http://progettare.comune.re.it](http://progettare.comune.re.it)
A web portal for planning professionals (architects, engineers, surveyors, agronomists and farming experts) that operate on Reggio Emilia's territory. They will be able to obtain information and services on line, to consult a data base and to follow step by step the procedures of building files.

- ScuolaRe [www.scuola.re.it](http://www.scuola.re.it)

On this website you can find information of interest for several targets (teachers, students, parents). Loading of the data is attributed to an editorial staff which is placed all over the territory and made up of personnel of the municipalities of the County, and of schools of all kinds and level within the territory. Every editor has been instructed and equipped with username and password in order to insert and modify only the information under his strict authority.

**Docarea**

Reggio Emilia City Council is one of the "developer" agencies of the Docarea plan that means to demonstrate that the organization and the rationalization of the back-office constitutes an important pre-requirement for the distribution of services to citizens and enterprises in the respect of laws, security of transactions and privacy.

Target of reference for this plan is enterprises, customers that demand more and more efficient and quality services, and are more familiarised with ICT instruments. In particular, the plan is concentrated on following procedures:

- The cycle of life of documents: from birth (when still they are not official documents), during the management of the running archives (exist in the systems of protocol of the Agencies), until their conservation (income in the warehouse archives where they must reside for 40 years before passing to the Historian).

- The management and the exchange of digital documents: how to deal with them and render them according to the law, how signing them digitally when it is necessary, as to exchange them to the inside to the Agency that with various Agencies, as to record and to conserve them in the time.

- The technology: the system of EDMS, integration with the protocol systems, the authentication and the digital signature, the certified mail, the substitutive optical recording, integration with the systems of workflow.

- The legal aspect related to archive (with the Emilia Romagna supervising archival) and organization (impact with the operating structures of the various Agencies).

**Sigma Ter**

The plan, started in its operating phase on May 2003, is born from the Plan of Decentralization of the land register to the Common, (in law enforcement n. 59 of 1997, therefore like defined from the D. Lgs.112 of 31/3/1998) to decentralize and improve planning, administrative and fiscal management of the territory. Further improve the
quality of the services for citizens, professionals and enterprises, that need to integrate the information of the land register (to level Agency of the Territory) with those territorial (to level of E regions Local Agencies). The plan Sigma Ter realizes remarkable benefits inner to Public Administration that above all for the final customers.

Inner Advantages to Public Administration:

- Realization and management of data bases integrated and certified through sharing information between various levels trained and PA.
- Improvement of the management of the territory from the fiscal and administrative point of view.
- Simplification and reduction of the procedures through IT applications cooperation and relative increase of the quality of the distributed services.

Advantages for citizens, enterprises and professionals:

- Possibility to approach to an immense integrated and certified informative patrimony.
- Reduction of number and variety of documentations to introduce to the PA, possibility to interact with the PA through the web, call center and internet points.
- Possibility to obtain services to high added value, certified in the respect of the norm.

Rilfedeur

The Ril.Fe.De.Ur plan. (Survey of the phenomena of city degradation) aims to widening and improvement of the activities of the Municipal Police in the survey and the management of the phenomena of city degradation, concurring with same a better dialogue with the citizens. Numerous searches in fact have shown relation between the phenomena of barbarisms and degradation and the feeling of emergency of the citizens.

In particular, the city degradation refers to permanent signs that attribute a hostile image to a determined city space: the graffiti on the walls, soil and refusals in road, abandoned buildings, damaged telephone boots, smashed benches in the park, abandoned bicycles or motorcycles. Further some aspects relate to practicability (holes, drains not working) or to the traffic (“wild” pauses, not authorized parking) that, united to the previous ones, strengthen in the citizens the image of a public Administration absent / not interested into taking care of the territory.

The realized service concurs to record and to support the management of the phenomena. It is based on Informative System that collects information of city degradation through three main channels:

- “Traditional” citizen that uses telephone call and paper support of paper.
- “Net” citizen that uses the e-mail or the website.
• People of local police who has a palm top PC to memorize problematic, beyond an instrument of control of the signals received directly from the citizens on the territory, and eventually from other channels, that they need of periodic verifications or validations.

Through integration with the digitized cartography, the informative system will guarantee the possibility to localize on the territory the problematic areas. The municipality will have the possibility to conserve historical memory of city degradation, enriched of one territorial information and consequently to plan the responses.

The Ril.Fe.De.Ur system is not only an instrument to improve the communication between the citizens and the Municipal Police, but also between the MP and National Police.

**People**

PEOPLE (Progetto Enti On-line Portali Locali e-Government) is a plan introduced with the co-financing on deep national e-Government slid the 10 June 2002 from many Agencies in answer to the first warning of performance of the Action plan of the 21 June 2000.

People means to characterize itself in particular for the amplitude of the offer of services and for the associated model of aggregation, based on a model of exchange, integration and sharing of services, products and solutions between the most dynamic Italians City Council.

The PEOPLE Aggregation is strong and articulated: it is composed from 55 Agencies of 13 various regions; it comprises Rome with its 2,5 million inhabitants and lesser commons starting from 2,500 inhabitants, for a total of more than 7,5 million of citizen, equal nearly 13% of the national population.

The Reggio Emilia City Council will develop services within:

- Treasurer.
- Demographic.
- Assistance.

**Reggio Emilia City Council innovation policy**

The "information society" in which we live today demands diffuse availability of technologies and in particular of communication technologies. The creation, the distribution and the treatment of the information constitutes the core of an economic and cultural activity ("economy of the acquaintance").

A digital city equipped them of nets data transmissions to high speed and above all of the diffuse ability to use them is pre-condition for obtaining a effective deployment of the information society.

The bet of the future digital city consists in the attenuation of the so called "digital divides" between several social fields and in the creation of virtual infrastructures and data transmissions that allow everybody to exploit new opportunities.
Reggio Emilia means to govern and to favor the full realization of the “information society” by means of two closely carrying aces correlates: the widening of infrastructures to wide band (“wired” and “wireless”) to reach a level of excellence and the enrichment of the school system with innovative opportunities of formation and the creative manipulation of multimedia contents.

**Wifi Reggio**

The project Wi-Fi Reggio, promoted by Reggio Emilia City Council and Enia (multiutility), proposes to diffuse the acquaintance and the use of the new technologies and to supply the citizen with new opportunities for work, study and access to the services.

The service addresses many kind of customers and is ready to answer different requirements such as navigation, e-mail, chat, access to e-Government services, e-Commerce, e-Banking, Skype telephony and all the other opportunities given by the fast convergence between telephone, web, television and net data transmissions.

The system allows also the access a virtual private network (VPN), enabling professionals and students to interact directly with their own customized workspace.

The first phase, realized in summer 2006, has seen an installation of access points ('hot spot') near the library Panizzi, the international Center Loris Malaguzzi, the Park of the People and the Block S. Rocco. Later, it has been decided to extend the wi-fi system in numerous places of the city. Thanks to a sponsorship from Credem Bank, Wi-Fi Reggio offers citizens free connection for the next three years.
VODAL3 – Network integration among Public Administrations

Province of Bologna, Italy

VODAL3, an acronym of Voice Data Lepida R3 (Voce Dati Lepida R3) is a project created and coordinated by the Province of Bologna – Information Communication Technology Department – and coofinanced by the CARISBO Foundation and Regione Emilia-Romagna. The project has the general objective to create voice and data communications between the Lepida network and the R3 radiomobile network using the most recent techniques of Voice Over IP and relative protocols, guaranteeing a proper level of service.

Lepida is a private broadband cable network, principally based on optical fiber, that can connect all the public administrations within the regional zone of the Emilia-Romagna. Schools, Hospitals, University can be connected with broadband so that it’s possible to develop new services like for the medicine the teleconsultation of doctors through the Lepida network to analyze the results of exams performed far away from the specialists for having a “second opinion” in real time for the patient.

R3 is a private radio network for emergency communications based on standard TETRA. This network is used by public safety, transportation, utilities, government and military. This kind of mobile network manage individual calls (like GSM) and group calls (like walkie talkie).

Both networks were made with the purpose to improve the previous connection level, fall down the costs and increase the service level.

These two networks were projected and realized independently from each other. The provincial administration of Bologna, involved in the development and using of both networks, has launched an initiative to realize the interoperability between these two networks, especially with emphasis for the services.

The integration of these two networks assumes an important role for the extension of the operative integration, for the increase of the efficiency of the services and for the cost reduction of exercise.

The project is divided in four different phases:

- The first phase is dedicated to the realization of individual call among radio mobile users of the TETRA network and fixed VoIP users of Lepida network. In this phase the access radio to TETRA is realized with a pool of radios connected to a gateway that is a go-between to VoIP. The gateway is the instrument for the connection for voice and data communications between mobile and cable world. The gateway for working with VoIP uses telephones VoIP exchange (softswitch) that coordinate the management of the VoIP communications. The individual call could be dialled indifferently from TETRA or Lepida users.

- The second phase considers the concept of group call typical from the TETRA world, where more mobile users can take part in the communication. By means of the gateway developed in the project, using a pool of radios, the philosophy of the group
The first and second phase have an interface with the TETRA network based on radio terminals directly connected with the gateway. The advantage of this implementation is the easy way of realization, so this system is independent from the politic of management of the TETRA network.

The disadvantage is the scalability: the number of parallel communications is the same number of interface radios connected with the gateway and everyone uses precious radio resources. These limitations will be overcome in the phase three, where will be created a native interface, connecting directly the equipment of management of the TETRA network with the equipment of management of Lepida network.

- The third phase completes the process of voice integration between the two networks, whether for individual communications or group communications.

- The forth phase focuses on data transmission between the two different networks, especially the realization of the localization service with GPS of the users.

The first user and tester of this system is the Provincial Police, engaged in rural environment, with the need of coordinating among the several teams in the hinterland and the offices of operative control. VODAL3 represents not only a project of integration but also the first realization of VoIP inside Lepida.

Another objective of the VODAL3 project is the deployment and reuse of this system for all municipal and regional reality. The technologies used for the software level are based on open source products.
Integrated use of digital signature

Anna Migliaro
ICT responsable, City of Genoa, Italy

Public administration and the internet seemed to be very far apart in the past. But now these two worlds are becoming closer and closer thanks to the government who has forced public administrations to innovate the way they work.

An increasing number of citizens use the internet and their need for more efficiency can be fulfilled through it.

What is more the internet has become and will become another window through which the public administration is seen by citizens.

Following this driver Genoa municipality developed many services on line thanks also to e-Government projects in which Genoa was involved and thanks to the national funding line about e-Gov. The first goal consists in the integration of the various component coming from different projects, the second goal was to use innovative technologies such as digital signature.
The basic structures that allow integration and that are shared by the projects are:

- Protocol system (that follow the rules of CNIPA that is national center for information technology for Public administration).
- Documental system.
- Digital signature.
- Certificate e-mail (PEC).

The main approach used was that every request available on our portal is closely connected with our internal system, and so the municipality's employees find the request directly registered in their back office.

To allow this mechanism when a citizen or business register himself on our portal they receive:

- A user name and a password.
- A Pec (certificated mail).
- A pin connected with a certificate issued by central authorities.

Every important request to be accepted must be signed by citizen. The equivalent of the process made by hand is the electronic digital signature that in Italy is regulated by law. So Genoa’s municipality to accept online request follows two different paths, one for the business users and the other for citizens:

- The first one must be provided of smart card with inside a digital certificate, issued by a central authority.
- The second one has a digital certificate that not need of a smart card but also this is issued and conserved from a trusted third part (the central authority). This certificate is given with no charge to all citizens who are registered on our portal.

The online request signed in these ways produces a valid signed request and this is automatically registered in the protocol register, the number of protocol is sent to the users (citizen or business) in their certificate mail and at the end it is registered in the back office system with no effort on the part of internal employee.

The opportunity offered by technology is also used for internal aim, so not only citizen or business use digital signature but also the municipality use it and employees are able to read and understand the legal importance of these requests.

This thanks to an internal project that has begun in the last year whose aim is the diffusion of the culture of digital signature in Genoa’s municipality.

This direction started from the higher management of public administration (about 100 managers) who today has its smart card and is able to use it. Not only managers are involved in this process, but all the technical persons who are able to use and support management.

The process is still ongoing and also the other levels of employment will use digital signature.
Today the use connected with internal procedure is implemented in:

- Buyer’s request.
- Services order.
- Legal advices requests.
- Administrative documents.

Moreover, a group has been created and a network of people belonging to every sector of administration that know this subject meets together every month to:

- Exchange experiences and problems.
- Knows the other key factors connect with e-Government.
- Increases and uses the opportunity offered by technology.
- Verifies if their processes can be change with the use of technology.

The next step is to increase the use of the electronic signed documents that are sent to or received from other public administration in order to reduce the paper.