Improving Performance and Innovation in Public Administration: analyses and researches among European e-Government experiences
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Foreword
The development of new information and communication technologies has led, in recent years, to a radical transformation of society. Communications, access to information on production processes, the various branches of the public administration: there is no aspect or dimension of life that has not been revolutionised by the new technologies. In particular, public administrations throughout the world, far from acting as mere terminal points of the process of renewal underway, are playing an active role.

An important step in this direction has been e-Government. As is common knowledge, e-Government means “the use of information and communication technology in the public administration, combined with organisational change, plus the acquisition of new skills, all for the purpose of improving public services and the democratic process, in addition to sustaining public policies” (European Union). From what has been stated, there is no mistaking the far-reaching scope of the concept of e-Government, which includes the formulation and implementation of a whole series of policies necessary for the effective introduction of ICT. More specifically, the concept covers both the so-called “electronic or digital administration” and “e-Democracy”. The first term refers to all those initiatives meant to simplify the activities and the mode of organisation of the public administration, so as to provide citizens and users with better services; as for the second term, it regards initiatives that allow citizens to take an active part in public life (electronic voting, forums, public enquiries etc.). In other words, the term e-Government designates the sum total of policies and actions designed to favour the introduction of ICT within the Public Administration, for the purpose of improving the services provided to citizens, with respect to their effectiveness, economic and operating efficiency and level of performance. The supply of more efficient services to citizens and businesses, together with the innovation and simplification of administrative procedures, are the main areas of development sparked by the change that came in the wake of the computerisation of the public administration. It is no accident that the noteworthy structural reforms implemented in recent years have had as their objective the promotion of a new administrative culture, meaning one no longer based on rigid procedures and dysfunctional formal practice, but rather geared towards results and performance. In keeping with this approach, the supply of effective, flexible, quality services to citizens and businesses through a drastic reduction in bureaucratic elephantiasis has become the primary mission.

Among the initiatives of international scope promoted to this end by the European Commission in recent years, the most important has been the so-called e-Government Action Plan 2010. This document contains the official declaration in which all the member nations agree to promote, within their respective nations, the alignment and harmonisation of the different national policies on e-Government and the new technologies, completing the task by the end of 2010.

The main objectives include:

- e-Government services that are easily accessible, user-friendly and transparent;
- an interoperable, on-line system capable of guaranteeing recognition of electronic identities, so that the citizens and businesses of any member country can access public services and branches of the public administration throughout Europe;
- the preparation of many more instruments designed to stimulate the participation of citizens and encourage their involvement in decision-making processes;
- an increase in the level of e-public procurement to 100%.
As is widely known, the _e-Government Action Plan for 2010_ reiterates the points of the previous Action Plan for 2005-7, confirming them unreservedly and further proposing the ambitious goal of making 100% of public procurement procedures available electronically, while arriving at actual use of e-Procurement for at least 50% of all such operations. Public procurement is a key sector of the European economy, seeing that it accounts for 16% of gross domestic product. It follows that the modernisation and opening-up of cross-European markets for procurement constitute key factors when it comes to European competitiveness and to the creation of new business opportunities. The implementation of new I.C.T. advances can contribute to the achievement of noteworthy reductions in costs, to the removal of market barriers and to the establishment of greater efficiency. At the same time, there can be no overlooking the risk that an unbalanced development of such technologies could result in a fragmentation of the unified market. In addition to the unquestioned benefits, the proliferation of new advances in I.C.T. could also lead to the rise of new barriers and obstacles to the freedom of movement of individuals, merchandise and services in the E.U., in the event that their implementation were not coordinated and rendered interoperable. The different national initiatives must be harmonised, in order to guarantee that, throughout Europe, each citizen is full European citizen. In other words, each individual must be able to access the same services, no matter where in Europe he or she happens to be. And this can only be achieved through the creation of an efficient system of data-sharing among the various European public administrations: no small task, given the scarce cooperation shown by the various parties involved. An apt example is the attitude of public employees, who, throughout Europe, bemoan the lack of information and data-sharing, but then, as shown by a number of surveys, prove to be the first ones not to believe in the benefits of e-Government for users. This resistance from public employees remains the primary obstacle. They should be involved in the projects of implementation, their proposals should be taken into consideration, and incentives should be offered. So while there can be no doubt that the enactment and use of these technologies by the different public administrations constitutes a key resource that reaches citizens in the form of improved services and more efficient public offices, it is also true that the benefits which digital technology can generate depend, and in a very direct manner, on the operating skills of their users. When discussing the topic of innovation and change in public administrations, it is not sufficient to consider automating the existing procedures, as was done in the initial period of e-Government. In fact, the necessary innovation is a system-wide effort that simultaneously and suitably involves various participants and factors: the personnel inside the public administration, citizens, internal organisations, the infrastructural instruments, the laws etc..

For any change to be effective, simply putting the technology in operation is not enough. Instead, learning procedures must be activated, providing the various subjects involved in the process with an adequate set of skills and technological capabilities. Naturally, this is true both for the high-ranking officials of the public administration, who bear responsibility for understanding and governing this major opportunity, and for all public employees, not to mention citizens, who are increasingly looking for public services and information on the Web. Each of these groups must at least possess the so-called basic _e-skills_, in addition to the different sets of know-how specific to their roles. It is no accident, therefore, that the reforms currently underway within the European Union, in addition to being geared towards transferring the traditional services of the public administration to Internet, with all the attendant benefits, are also aimed at eliminating any gaps in knowledge. Investing in innovative services, know-how and
social relations, so as to put into practice programs for improving and learning the new
technologies, will reduce the difference between those who are able to use them and
those who lack that ability.

Another question of particular importance is the change in the very outlook of the
activities of the public administration, which are no longer focussed on the needs of the
public administration itself, but on those of citizens. The term user-centricity refers to this
change in perspective. Under this new scenario, civil society moves beyond its role as
the passive subject of administrative acts, becoming a social protagonist capable of
direct participation in public life. Thanks to the new technologies, citizens have greater
opportunities for accessing information. They can take part in the decision-making
process, offering suggestions and criticising the work done by the public administration.
When they are given a chance to express their views, their sense of responsibility
towards the body public grows, forcing the public administration to listen to them and
setting in motion a process of synergy based on the effectiveness and efficiency of
administrative actions.

These opportunities are even more interesting when applied to local public
administrations, as is shown in the memorandum of the European Council on the
convention “Electronic Democracy and Deliberate Consultation on Urban Projects”:
citizens feel a greater urge to make themselves heard on issues that have a direct effect
on their day-to-day lives.
A further consideration is the fact that citizens are increasingly being viewed as partners
of the authorities within an even larger territory: Europe.

This volume is an annual reference, an opportunity for analysis, reflection and study on
the international level by all those interested in remaining constantly updated on
technological progress and on perspectives that could potentially permit a noteworthy
transformation and an opening of new horizons for development, within the context of
the Information Society.

Its contents constitute a collection and analysis of highly competent contributions
supplied by the European public administrations in the sector, with the end goal of
formulating an updated and thorough overview of the most noteworthy e-Gov
experiences currently underway in Europe.
Compared to previous editions, this one sets itself apart by the special attention paid to
the topic of “Improving Performance in Public Administrations”. The volume is organised
in three parts: the first regards the revision of administrative processes and the
management of flows of documents; the second the topic of innovation in the services
provided to citizens and businesses, and the last deals with the prospects and
opportunities offered by an integrated platform of e-Government.
The questions dealt with were carefully selected, in an attempt to cover the main issues
currently at the centre of the European debate on e-Government.
How do we use e-Government tools to reduce administrative burdens? (Belgian strategy)

Luc Gathy,
Chancellery of Prime Minister - Agency for Administrative simplification, Belgium

After reviewing the Belgian approach for administrative simplification, we describe finalized projects where e-Government plays a major role. Finally we explain some lessons learned about how to improve Public administrations performance.

Better regulation in Belgium: focus on administrative simplification

1. Historical context

Since the mid-1970s, in a series of state reforms, Belgium has experienced a profound transformation of its governance structures that continues today. Devolution of regulatory powers to sub-national authorities had immense impacts on the form and capacities of the public sector.

There was a risk that administrative costs would increase, provoke overlap, and fragment the business and citizen's environment.

Other important features of Belgium administrative culture are a highly developed legalism, reliance on precedent, and formalism in actions and procedures, which has made it difficult to move toward policy practices and tools that are results-oriented and responsive to citizens and businesses. Policy-making is more often seen as a process of drafting new laws than a discovery process that compares the pros and cons of various options to find the best solution.

In some cases this could affect the quality, flexibility, and responsiveness of regulatory and administrative practices.

2. Evaluation of administrative simplification initiatives

Initiatives were aimed at boosting managerial and technical skills, improving flexibility in the civil service, changing a procedure-based administrative culture into a performance-based culture, and shifting the focus to objectives in the delivery of public services.

Importantly, the 1998 law created the Administrative Simplification Agency (ASA), a new federal institution, to reduce red tape drastically. The new government that came to power in June 2003 refocused the administrative simplification policy, changing from quantitative targets to a qualitative approach.

Starting in July 2003, ASA oriented the policy around strategic works. It moved from an item-by-item approach to a more global perspective on the system governing forms and procedures.
As an agency, ASA has substantial autonomy. ASA enjoys budgetary rules that are more flexible than for a typical service. Due to its institutionary position, it can offer a neutral platform to discuss simplification proposals between line ministries or between administrations and business organizations, it can act as project coordinator for cross-departmental projects and report on the progress of (structural and punctual) simplification projects.

The sustainability of this policy requires a mix of “quick wins” and deeper structural reforms. The 12 strategic works called “Kafka-Plan” provide a more focused road map for long-term and structural objectives (such as unique data collection for citizens and enterprises) and shorter-term projects that can enhance political and citizen’s support. As these projects evolve, ASA has strengthened its credibility and gets now the necessary financial and political support.

The ASA established also a 35-member network of simplification agents (one official representative from each public body) to relay the administrative simplification policy to their institutions. The agents are responsible for reporting on the implementation of the simplification proposals put forward by the ASA and by their own department.

3. A multidisciplinary approach

ASA conducts a series of projects that are often described as “mammoth” projects. They intend to reform completely, or to “reinvent”; the administrative infrastructure. They need the participation of many agencies and require IT-investment, back office reorganizations, legal changes, communication, and monitoring (fig. 1).

Fig. 1 – Circle of Simplification

One of the most significant of this type of projects is the Crossroad Bank for Enterprises - Banque Carrefour des Entreprises (BCE). The BCE is built on the precedent and success of the Cross Road Bank for Social Security (BCSS) launched a decade earlier. The BCE (fig. 2) is an electronic business register system accessible to all administrations where public and common information on enterprises are stocked.
The ultimate objective of BCE is that businesses will submit their information only once. To set up the BCE, the government introduced a unique identification number for every company. It developed a single database that can be accessed by all departments concerned. It worked to integrate the commercial register and the accreditation of one-stop-shops. The system intends to permit interconnections from the regions and communities.

BCE is becoming the backbone of a comprehensive business information system. BCE and the BCSS are connected to other networks such as the one operated by the tax administration.

Fig. 2 – Crossroads bank for enterprises (Unique data collection)

This project and the e-Depot project (see point B.) brings Belgium up to the head rankings in the World Bank “Doing Business” report as the time needed to start up a business will be reduced progressively from 56 to 3 days in 2007.

In this project a completely new and IT-based concept for start-ups had to be designed, administrative procedures had to be inventoried and screened on their necessity and adapted to the new concept, legal texts had to be changed and agreed between all political parties, the role of existing structures re-examined and their work re-organized, communication to both businesses and administrations taken care of, etc.

4. Ex ante and ex post approach in reducing administrative burdens

Government simplification policy both concentrates on ex post reduction of administrative burdens as on the “upstream part,” which focuses on the source of the complexity in the policy, in the regulation or the interaction of these and other policies and regulations.
In October 2004 a Kafka-test (ex ante approach) has to be jointed to all new proposals presented to the Council of Ministers. This Kafka-test (fig. 3) is the result of an evaluation of the impact of a new proposal on the administrative burdens for enterprises, citizens or the non-profit sector. It also describes what measures have been undertaken to minimize administrative burdens. This Kafka-test will be extended and will contain a more substantial analysis of potential effects of new proposals as well as a quantitative estimation of administrative burdens.

The Kafka-plan represents the core of the ex post government simplification policy. However, ASA works also on supplementary projects in a number of areas (food safety, disabled persons, company law, ...). A number of these projects are inspired by the input of citizens and entrepreneurs via the Kafka focus point (www.kafka.be and www.simplification.be).
A new element has been added to the simplification approach: all new projects are now accompanied by a base-measurement of administrative burdens. This methodology to measure administrative burdens is based on the standard cost model developed in the Netherlands and used by a number of European countries.

Belgium however developed a new asset to the Standard Cost model: a methodology to measure administrative burdens for citizens. The results and the analysis provided by the base-measurements will be used to detect supplementary simplification possibilities and to create more awareness within public administrations (fig.4).

Fig. 4 – Impact study of the declaration on honor in e-Tendering (SCM on Telemarc project)

Belgium takes also part in a European VAT-benchmarking exercise, which measures all burdens related to the VAT-legislation and compares costs and procedures among a number of European countries.

Regularly, legislation is screened for redundant procedures, authorizations, etc. This resulted in two simplification laws. More than 20 procedures, both for citizens and enterprises, were abolished by these laws (deregulation part of the policy).

Company start-up in 3 days; The Agency for Administrative Simplification and the Royal Federation of Belgian Notaries launches e-Depot

1. Introduction

Previously the process for creating a company was entirely paper based and raced its roots back to the Napoleonic era and accompanying legal code.
Completing the administrative formalities required by the authorities with the help of a notary used to take as long as 56 days. Thanks to the e-Depot project, the delay is reduced to three.

Until recently a whole series of steps was necessary to found a company. Following an initial visit to a notary and the depositing of the minimum required capital at the bank, the memorandum of association was drafted by the notary, signed and sent to the clerk of the court for registration.

A visit to the Chamber of Commerce and Industry was required to obtain the business license as well as a trip to the trade register to get a company registration number. Then followed a visit to the VAT office to receive a VAT number (without which it is impossible to operate) and registration with a social security office – paperwork and formalities at every step of the way.

2. Optimizing the procedure

The Federation decided that the time was right to optimize this procedure. The Belgian government’s Agency for Administrative Simplification agreed, and lent its support to the project; shortly after, work on what was to become e-Depot began. The project was to be a cooperative effort between the Federation, its IT subsidiary CREDOC Services and FedICT (the Federal ICT agency).
Together, we designed the system architecture (fig. 5), generated the business logic and provided the insight into the legal process and played a pivotal role in generating consensus and buy-in among all the stakeholders.

This was a considerable challenge, given the number of government authorities involved in the process: the Agency for Administrative Simplification, FedICT, the Home Office (responsible for the civil register), the Ministry of Economy (in charge of the Belgian Public Crossroad Database of Enterprises) and the Ministry of Justice (responsible for both the Belgian Law Gazette in which company statutes are published and for the clerk of the court).

3. Going live

By early 2006 the e-Depot project was moving at full speed, with increased technical capabilities and a highly structured approach directed by monthly steering committee meetings during which progress, issues, proposed solutions, KPIs, deadlines and budget were all thoroughly reviewed.

Given the need for totally reliable information (due to the legal character of the data involved), the Federation formulated a vision of “no legal security without information security”. It was essential that the automated workflow be absolutely confidential and completely secure in order to maintain the integrity of the information exchange as it moved away from paper to an electronic channel.

This ultimately led to a system of digital signatures linked to personalized chip cards for every notary, eliminating both the need for multiple manual signatures and the risk of forgery.
After more than 4,500 users were trained in February and April, the e-Depot system went live in March 2007 and was a real revolution in administrative terms. The process of creating a company had become entirely electronic (fig. 6): data entered into fields in the memorandum of association by a notarial employee is used throughout the process, and means that the clerk of the court no longer needs to process all the information manually – all the information is available electronically resulting in significant time savings and reduction in human error.

Once the memorandum of association has been input, it is sent to all the databases that require the information. Several minutes later the notary receives the new company registration number which can then be electronically activated by the starting entrepreneur in any one of the 10 accredited enterprise offices in the country, and the new company can commence operations.

4. An integrated project

The Federation’s e-Depot project was an ambitious e-Government project, a private-public partnership aimed at automating the interaction between notaries and various government bodies. In this sense the Federation and the Agency for Administrative Simplification were instrumental in bringing all the different parties to the table, building trust and facilitating cooperation across the boundaries between public sector authorities while sharing its insight of the underlying processes.

The outcome of the project was positive for all stakeholders: entrepreneurs benefit from much shorter start-up times, notaries have a single electronic channel to interact with multiple counterparties and the authorities have rapid, centralized access to key data regarding company statutes – all in a 100% secure environment.

Most importantly, the e-Depot project demonstrates that the Federation deserves the monopoly position it has as trusted third party advising people on key transactions in their lives (e.g. setting up companies, buying real estate). This was not merely the automation of an existing process; legislation has also been modified to reflect the new situation.

Conclusions

e-Government is different from administrative simplification but complementary and we use e-Government tools in the administrative simplification projects. The two main methods used for administrative simplification are regulatory reforms and electronic unique data collection (in authentic sources of information like Crossroad bank for enterprises) plus different methods to evaluate administrative burdens. We have three principles in regulatory reforms: abrogate if possible, simplify or look at alternatives.

In IT projects, we must consider the centralization of the various procedures and combine them in a single procedure available on a one-stop-shop platform or single point of contact (that’s the case for the e-Notary in Belgium). Identification data is simplified, we gain time and money, reduce administrative management, increase legal security, transparency and reliability of data.
The benefits for the public services are similar: improved efficiency, better access to information, distribution and respect of competence, reorganization of services, legal rationalization (harmonization), gain time, better coordination, interaction and cooperation.

e-Depot was recognized as a best practice particularly for the collaboration between IT and civil officers (http://www.eppractice.eu/cases/1010). The goal reached was an integrated project. Our vision was that legislation, organization and automation could all be seamlessly combined, and that is what we did with e-Depot. Addressing cultural issues in the context of the project was equally important.

The IT technicians not only provide technical support, they highlighted the importance of a professional approach to change management to ensure the success of the new system. In this respect, the personal involvement of stakeholder’s top management was key to building up a real partnership based on trust.

We can qualify the e-Depot project like:

- Challenge: successfully implement administrative simplification of the legal process for creating a company in cooperation with multiple government institutions.
- Solution: automation of a previously paper based process with data output to various institutional stakeholders.
- Results: e-Depot system – an entirely automated process for sending the electronic version of the memorandum of association of a company to all the relevant authorities, reducing the time required to found a company and make it operational from 56 days to 3.
Using Information and Communication Technology (ICT) in the regional New Governance

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For the past twenty years, all political and administrative management forecasts keep repeating that the New Administration will be dematerialised and interactive.

The people responsible for political and administrative management have been announcing for a decade that we have made much progress in improving the capacity of the public services to communicate with the citizens in a modern and efficient way.

What do we really see, in view of these two declarations?

On the one hand, we see that virtual administration is not yet a reality – far from it – and that paper is still widely used and indispensable. On the other hand, we see that the communicative gap between the administrations and the citizens is as large as it ever was.

What method do we need to boost our public services towards more efficiency and more interoperability with the citizens-customers?

No administration or no manager has a definitive answer to that, a magic formula to find the perfect solution so as to render the public administration efficient, attractive, less burdensome and participatory.

This means that our public services have to combine a “traditional office” with the necessity to use (modern and widespread) communication technologies.

With regard to this double challenge, the Brussels Capital Region has decided, almost fifteen years ago, to create a “specialized regional agency”, the Centre Informatique de la Région de Bruxelles-Capitale (CIRB – Brussels Capital Region Informatics Centre).

The Brussels Capital Region Informatics Centre was at first a subcontractor, but since 2007 it’s a partner in its own right of the Brussels political and administrative institutions, and in particular the Brussels Capital Region Ministry.

Partner, that’s right, for the CIRB has obtained a certain independence in its actions, although it still gives priority to activities in connection with the Brussels institutions (parliament and minister’s departmental staff, local institutions and authorities). Next to that, the CIRB develops – on its own or in a partnership with the Brussels government - international activities (consultancy firm, service supplier or agent for bilateral or multilateral cooperation's).
A new approach of the public services’ informatics needs

How can we enumerate the needs of the Brussels Capital Region Ministry (MRBC) and the CIRB’s activities? How do we request services, hardware or software?

First and foremost, we need to establish that the CIRB holds a monopoly position with regard to the MRBC, because, in compliance with the partnership agreement, only the CIRB can perform this kind of activities for the Ministry. Through this situation, the services rendered always maintain their high level, yet the “captive client” position sometimes leads to a less innovating solution or does not guarantee best value for money. But it’s also the least bad option to guarantee a better (or according to some, a less bad) use of public money.

Then, we have to consider that the 2007 partnership agreement has created a tender procedure, a procedure for the examination of requests/projects and a procedure to help make a decision. In the first place, the services of every directorate-general will formulate requests or express specific needs – the specific aspect of the global options will be examined later. The director-general then examines these requests with the “local” informatics coordinator (a civil servant who prepares and follows up on the approved projects), which are turned into “project sheets”.

Afterwards, these project sheets are submitted for the first time to the Comité Informatique Préparatoire du Ministère (CIPM – the Ministry’s Preparatory Informatics Committee). The CIPM will examine the administrative aspects (especially all the restraints) and the technical aspects and will then forward the sheets to the CIRB informatics manager (= the delegate in the organization).

Within two months, the project sheet will be completed as to its technical aspects and will be estimated financially (will the project be done internally or by an external consultant, how much will it cost, do we need to buy software or hardware, ...).

After that and on the initiative of the general informatics coordinator (the Ministry’s), the project sheet will again be examined by the CIPM. The Committee will deliver advice to the Ministry’s board of directors (management body, consisting of the secretary-general, the deputy-secretary-general and all directors-general), which is the only body that can make the final decision (positive or negative).

If the decision is positive, the CIRB coordinates the project: it chooses an internal team or an external partner, it supports and implements the project. If the decision is negative, the directorate-general in question is informed of that fact and is asked to drop the project definitively or to change it so as to make it “acceptable.”

As the project evolves, the directorate-general keeps pulling the strings, because the director-general is the sponsor (= the one responsible). An “ad hoc” functional project director and the informatics coordinator systematically join in with every phase of the project.

Specific bodies will also be created and will join in with the general work: a steering committee, a follow-up committee and two specialized working groups (one that takes care of the “acceptance of the final products” and another that takes care of the examination of the “changing of the project structures”). Every phase involves a procedure for the validation of the situation and its future evolution and internal information is exchanged.
As you see, initiatives are possible and are even encouraged, and yet a framework procedure has been installed. In the end, this procedure is not as cumbersome or administrative (in its negative sense) as it seems. A priority scale has been established and certain measures can be taken to speed up the projects.

**Which projects are currently in progress?**

They can be divided into three categories:

- applications for a single directorate-general;
- applications for two or more directorates-general;
- and global applications, which can be used by all departments.

At the moment more than fifty projects are under way and have reached different levels of accomplishment (or non-accomplishment), with regard to, for example:

- In the first category:
  - Digitising the European district in Brussels (in order to create a 3D picture library).
  - Developing an application in support of the technical, financial and administrative treatment of the programmes for neighbourhood revitalisation.
  - Developing an application for the management and the follow-up of the investments by local authorities, subsidised by the Region.
  - Developing a system for the safe electronic transfer of documents between the local authorities and the Brussels Capital Region.
  - Creating a central database with information on the budget and accountancy of the local authorities.

- In the second category:

  - Creating a system of assistance with regard to the granting and the follow-up of financial aid to persons (housing aid) and companies (investment aid or recruitment aid).
  - Creating a system for the treatment of the salaries, wages and allowances of the Ministry personnel.

- And finally in the third category:

  - Applications for booking meeting rooms, for making a press review, for collecting the food orders for the central cafeteria, … .
  - A preliminary study before the installation of a new e-mail system.
  - Coordination of the dynamic and non-dynamic maintenance.

Also with regard to programmes for the management of the hardware stock and the stock of software packages or other transversally used software (such as SAP for instance), the CIPM renders its advice in order to help the direction board in making its choices and decisions. The initial proposal is established by the CIRB on the basis of the demands issued from all general departments and all external services of the Ministry of the Brussels Capital Region.
Conclusion

This was a rough draft of the methodology the Ministry of the Brussels Capital Region applies in order to meet the needs of its departments and those of the public-client-citizen.

Which conclusions can be drawn from this?

After two years of functioning, the system has already shown its strengths and weaknesses:

- **Strengths:**
  1. the needs of the departments are met more satisfactorily;
  2. the applications used are rationalised (cooperation between the Brussels services, and even with the other Belgian regional administrations);
  3. the system is in a certain degree applicable on several levels and in different services, and the decisions are more coherent.

- **Weaknesses:**
  1. the factual monopoly of the CIRB, which stands in the way of all open competition;
  2. the bureaucratisation of the decisions and sometimes the lack of reaction with regard to unforeseen circumstances;
  3. the difficult adaptability of the service provider to the juridical and administrative constraints of the partner-client;
  4. and the risk of the slowness of the old technology when faced with external events.

Nevertheless it is clear that the partnership MRBC-CIRB allowed a better adaptation of the Ministry administrations to the new IT and software tools, which is beneficial for the citizen-client and a results in a better cost-efficiency of the public services.

The standardisation of the procurement, evolution and maintenance procedures for hardware is also a bonus, allowing to gather a larger “critical mass,” which is more interesting for potential providers.

Finally, and in spite of the monopoly-like situation that results from it, the partnership between both institutions (under the control of the same political authorities, namely the Brussels Government) simplifies the contacts and relations: for instance because the Ministry permanently disposes of the qualified CIRB personnel present in its offices and because for the Ministry the provider and the maintenance technician are the same.

Nevertheless, without an evaluation of the client’s satisfaction and the realisation of targets, - ideally by means of an external procedure -, there are risks for bureaucratisation, slowness of the old technology or a lack of proactive action of the provider with regard to its client-partner.

Only time can tell if we have made the right choices!
e-OAS - Electronic Document Management System

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e-OAS introduces government-wide electronic document management services and automates the procedures and regulations that rule document creation, archiving, security, distribution and disposal, including their final destruction or long term preservation for future accessibility by the public and researchers.

e-OAS has brought the benefits of a paperless office to the government sites, to which it has been implemented until today. It improves communication times and cuts back on operational costs. It enables the interconnection of user department and the electronic exchange of documents between them. It also provides distance-working capabilities (tele-working).

The target group of e-OAS is all government organizations and in particular all types and levels of government employees (i.e. from clerical staff to executive managers).

Background

In 1987, a strategic study was carried out to examine the Information needs of the Government of Cyprus and to identify candidate applications for computerisation. Based on the recommendations of this study, the Council of Ministers adopted a Government Computerisation Master Plan (GCP) in March 1989.

In 1998, the Council of Ministers approved a revised version of the Government Computerisation Plan. Rapid technology changes and more demanding users necessitated the revision of the Master Plan to include new projects and adjust our national Information Systems Strategy (ISS) to the new technology environment. The ISS aims to achieve the best possible quality of services offered to the public, making full use of the new information technologies.

Within the framework of this Strategy, a number of information systems have been developed to support the internal operations of Ministries and Departments, a Government Data Network (GDN) was developed, and a Government Internet Node was established to provide the gateway between Government Systems and the public network. Strategic projects are continuously being developed and/or enhanced in order to satisfy the increasing Information Society needs.

The e-Government Vision came along in 2002, with the continuous enhancement and updating of the ISS, the developments in Information Technology and the EU Directions, in particular the eEurope+ and the eEurope2002 action plans. Many of the objectives of e-Europe Action Plans, including the e-Europe 2005 action plan, have been achieved whereas the Cyprus Government is currently promoting the Lisbon Strategy.
Cyprus is currently in the process of formulating a comprehensive National Strategy for Information Society in order to implement the i2010 policy, the main objective of which is to utilize the possibilities offered by the Information and Communications Technologies for the achievement of digital convergence. This would contribute to the achievement of the strategic aim of improving competitiveness in all the fields of economic activity.

Top priority will be given to the use of ICTs in upgrading the services provided by the public sector. Confronting the shortcomings in electronic government is of primary importance, as this constitutes the basis for developing other electronic services. It will also contribute to the improvement of the performance by the public sector, thus facilitating the growth of small/medium enterprises and the improvement of the quality of life of the inhabitants, especially those who are facing accessibility problems.

**Implementation and Management Approach**

e-OAS is one of the infrastructure projects included in the Information Systems Strategy of the Cyprus Administration and falls under the “Efficiency and Effectiveness” objective of the i2010 strategy.

It is currently installed and operates in real environment in 9 government organisations serving 800 users. Four of these organisations are using the newest web version. It is anticipated that within the next 8 years, e-OAS will be installed to the entire public service of Cyprus, covering approximately 10,000 users in 80 organisations.

To coordinate the rollout of the system a Board has been constituted with members of several Ministries and Departments. Departmental Project Boards are also established for every new site in order to manage the installation and changeover efforts. Each board is chaired by the director of the user department. Senior Officers from the Department of IT Services and the Public Administrations and Personnel Department also participate.

The assigned Project Manager (PM), the Technical Steering Committee and the Quality Assurance Team reports directly to the Project Board. Resources from System Support Group, User Liaison Officers and Trainers are made available to the PM according to specific project requirements.

The Public Administration and Personnel Department have set the official rules for handling the paper documents received by the departments after their insertion to e-OAS and their handling as electronic documents.

During the implementation of the e-OAS to the various Governments organisations, the Cyprus Academy of Public Administration carried out seminars with the aim to highlight the importance of Information Technology in the public sector and to manage effectively the organizational change within these organisations. This was very helpful at all levels, especially at the management, since top-level commitment and leadership is required for the successful implementation of the system.
Impact

The main functional characteristics of e-OAS are the following:

- Records Management and Document Processing, including inbox style processing capabilities, extensive search and retrieval facilities.
- Retention/ Disposal to facilitate the destruction or transfer for permanent preservation.
- Security and Access Control.
- Workflow Services.
- Management tools for job monitoring and status tracking.
- Remote access, enabling tele-Working and Audit Trail.

e-OAS is a pioneering system in the area of Document Management since it satisfies all the requirements of an integrated Electronic Records Management System. It has been designed in accordance to European and other international standards and is one of the few that provides such degree of completeness in functionality. It has been designed in such a way that offers a great degree of flexibility and allows customisation to fit the specific needs of the user organisation.

The functionality offered covers requirements in the areas of work assignment and processing (document filing, distribution, search), document disposal (destruction, permanent preservation, accessibility by the public and researchers) and Security as this is described in national and European regulations.

The system incorporates predefined electronic workflows, which automate the formal procedures and rules. It applies different workflows for different document types (incoming, outgoing, internal), as well as workflows to ensure authorisation and to enforce document security. Workflows are also applied on Disposal (between the organisation and the State Archives).

After one year of its operation at the Department of IT Services, the following savings were observed when the manual system was compared to the electronic one:

- There was approximately 50% reduction to the registry staff (measured on registry related work).
- 60% decrease in the average time required for filing a single document.
- Average document forwarding time (i.e. transfer a document from one employee to another) was reduced from an average of 2 hours to less than a minute.
- Average time required for an incoming document to reach the employee responsible to take action was reduced from 20 hours to 1 hour.
- There was approximately 40% reduction to the number of document folders required by the electronic system as compared to the manual one.
- There was 100% reduction in folder circulation within the department (ie no manual folders where needed to be forwarded).
- “Missing” document or folder cases were eliminated.
- All requests for document/folder access were satisfied.
- Lower Administrative costs.
System Evaluation

An evaluation study has been conducted by the Public Administration and Personnel Department. The study involved 5 user departments that operated the system for 3-6 years. The evaluation results indicated the following:

- All initial objectives set at the beginning of the project were fully achieved.
- Increase of the effectiveness, efficiency and productivity of the operational efficiency of the departments.
- Faster document retrieval through advanced search capabilities.
- Faster assignment and completion of work.
- Better worker responsiveness due to the simultaneous access and processing of the same document.
- Reductions on physical document storage requirements.
- Better Job status monitoring capabilities.

Awards

e-OAS has been awarded the FileNet EMEAN Innovation Award in May 2007 followed by the Cyprus Innovation Prize, given by the Employers and Industrialists Federation in June 2007.

Track Record of sharing

Apart from the Government Organisations that will be included in the system rollout, the success of the system created an interest amongst other organizations (mainly Legal Entities under Public Law).

In particular the following organisations have already signed a licence agreement with the Government in order to install and use e-OAS:

- Cyprus Tourism Organization.
- Technical University of Cyprus.
- Commissioner of Telecommunications and Postal Regulations.
- Cyprus Police Force.
- University of Cyprus.

The following organizations have also shown interest in purchasing e-OAS and their applications have been forwarded to the Ministry of Finance for further processing:

- Cyprus Sports Organization.
- Cyprus Scientific and Technical Chamber.
- Water Board of Limassol.

Lessons learnt

The successful implementation/operation of e-OAS at a specific department relies extensively on factors other than the system’s technical excellence.
These factors have been identified during the first installations of the system and special attention is given to them before the operation of the system at a new site.

These factors are:

- Failure to secure strong management commitment.
- Management reluctant to use the system.
- Undisciplined departments - resistance to change.
- System initial teething problems causes frustration to the users.
- Non-timely User Training.
- Low degree of computer literacy.

Therefore, an action plan including a number of measures, which are given below, proceeds the installation of the system in a new site:

- Rollout Strategy dealing with Management and Technical issues.
- Management of Change.
- Seminars to inform and prepare users.
- Presentations and Workshops for Managerial Staff.
- Funds for IT awareness seminars and Electronic Office tools training.
- User involvement during System implementation.
- User Awareness through publications (e.g. leaflets, posters, newsletters).
- User Training shortly before the live operation of the system.
IT-document processing in Emilia-Romagna: DOCAREA and ParER projects

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Towards a Digitalized Public Administration

The current digitalization process in Public Administration makes the full implementation of the reform aiming at introducing the IT protocol and the computerization of administrative procedures more pressing, as envisaged by law-makers. Recent developments in terms of e-Government have been focused on the organizational assets of back and front office and their mutual relations, in order to improve end-services. Despite difficulties faced by the majority of organizations in pursuing innovation and streamlining processes for documental systems, the benefits from the computerization of document processing and the centrality of the archive, either for current and storage/historical documents, have already been established for the entire process of de-materialization. Thus, technological innovation in archives must necessarily be matched with archival tradition in order to encompass all juridical, social and institutional functions associated with document conservation according to prevailing law. The problem of keeping documents, information systems, web sites and all the digital flow generated by organizations is the most complex outcome of the digitalization process the administrative machine is experiencing.

Implementation and organization of an IT system, capable of governing the performance of operations and functions necessary for the correct development of digital administrative processes, would require high economic investments – besides specialized and qualified skills and professionalism; the system should be conceived and designed in the active phase of document creation, in order follow handling and processing down to long-term conservation. Local authorities have faced the challenge with concern: as governing bodies, they are closer to citizens, in terms of territorial and institutional proximity, the repositories of many of the individual rights which civil society is based on, and the representatives of a staunch tradition of conservation of archival assets. However, municipalities and provinces are also public entities with the least financial and professional resources to be used for current documental processing and conservation. In order to clear the hurdles concerning the statutory and long-term conservation of IT documents, solutions should be found which are capable of assuring the correct processing of documents, also from an archival perspective, while also solving the problem of lacking economic and human resources.

Hence, the idea of the so-called “Centers for digital conservation” or digital storage, or “Archive Service Center” (ASC), the Federated Archives of OASIS: namely, structures dedicated to conservation at the service of several bodies and organizations.

In view of the above, Emilia-Romagna has seen the implementation of two projects for documental processing: DocArea, for current documental handling, and ParER (Regional Archival Pole of Emilia-Romagna), dedicated to statutory and long-term conservation of IT documents.
Emilia Romagna Region and DOCAREA project

Emilia-Romagna – already quite advanced in its tradition of archival management, with highly-developed networks and infrastructures, and interested in the matter of documental flow processing – has seen the design and setting up of DOCAREA “Digital communication within and between Institutions” (funded in the first e-Government phase and coordinated by the Province of Bologna), with the participation of the great majority of local authorities in the region.

All Administrations participating in DOCAREA have acquired the technological equipment, all the needed references and guidelines to implement the project solutions. Within the 2nd e-Government phase, Emilia-Romagna Region has presented DOCAREA+, namely the project extending its coverage to health boards, hospital trusts and regional agencies.

The project has pursued the goal of developing a technological and organizational infrastructure of documental back office, as the basis for the integration of applications for the delivery of online end-services. The project therefore deals with the topic of documental flow and digital communication, by encompassing the entire life cycle of the electronic document, and providing technological (EDMS platform, integrated protocol systems, authentication platform, digital signature, certified mail, replacement optical filing, etc.) and juridical-organizational (reference standards, archival regulations, management handbook, etc.) tools, which are needed for the correct processing and transmission of electronic documents.

From DOCAREA to PAR-ER

The analysis of the problem of long-term conservation of digital documents which are produced, handled and exchanged, both within the network composed of participating administrations, and outside with respect to citizens, has always been one of the project priorities.

As implementation was needed also in the active phase, the project – with the technical and scientific co-operation of Emilia-Romagna Archival Bureau – has also defined prerequisites and implementation of functions for a system of digital filing. The project enlargement, which has taken place by involving (health and other) companies in the Emilia-Romagna territory – also interested in the matter, in view of the progressive production of IT documents and their inability to handle their conservation – has enabled to tackle the problem from a wider perspective and to design a regional solution.

The outcome of the project design has brought about the definition of an archival structure – called Archive Service Center in the project documents– conceived as a focus Pole dedicated to the storage and historical filing of digital documents from participating Bodies, according to a “1-m” logical model, where several different institutions send their documents to a single structure.

The single-archive model serving several administrations seems instead the most suitable as it assures an adequate technological and organizational system - within a technological and procedural context characterized by a good level of standardization and homogeneity – together with a steep cost curtailment for a function which is extremely
burdensome for producing bodies, thus avoiding the multiplying of the same type of conservation and storage facility, in every municipality, company and province. For the project implementation, the Region has established a working group composed of experts from participating Universities and administrations, dedicated to the analysis and assessment of technological, organizational and legal specifications, and to the definition of institutional, juridical, technological and organizational requisites for the Pole. Thus, the conceptual layout of PAR-ER, the archival Pole of Emilia-Romagna Region was born.

In general, the project intends storing documental assets from the entire territory, in a safe and advanced system, in full compliance with legislation in force and international standards, starting from IT documents, thus avoiding the risk derived from technological obsolescence and procedural mishandling. The IT archive thus created is therefore capable of managing and storing individual documental systems (also on paper), by assuring their integrity and authenticity, their needed availability, and providing specialized archival services to the community.

The Working Group has defined the basic principles and the conceptual model of reference, as well as the panel of services to deliver, and has explored in depth pitfalls in the regulatory and legal systems, linked to digital conservation. The work of analysis and assessment of opportunities, constraints and problem areas has enabled to define logic and functional elements of the implementing project for the Archival Pole:

- The organizational model (1- m) of the archive where several institutions refer to a given facility
- The uninterrupted storage, by which the authenticity of the document, besides being exclusively assured by the seal of the digital signature progressively renewed as envisaged by present legislation, may be inferred:
  - By proving the existence, from the time of document production, of an uninterrupted series of reliable custodians. A reliable custodian is a neutral third party responsible for the control of the creation, acquisition and conservation of documents
  - By showing a regular functioning of the conservation system, by maintaining all the contextual information through time
  - By showing the timely performance of procedures pertaining to the conservation model, through maintenance of contextual information through time.
- The public nature of the Pole
- The need for a process compliance (more than a compliance for every possible document) both for paper and digital materials
- The responsibilities concerning current documents by the producing Body
- Conservation of the entirety of the profile data also in the presence of mixed files, in order to assure their completeness.
- The need for a reliable system of auditing, monitoring and control to be used by producing entities and archival bureau.

As regards services that the Pole should deliver, they are grouped in two main areas:

- For digital conservation, as the main mission of the structure;
- For archival advice provided to participating bodies.
Other additional services may also be added for paper documents, or for the conservation of information systems and data banks.

**Implementation stage**

Actions for the executive and effective implementation of the PAR-ER Pole, both from an administrative and operative perspective, have been enclosed in the Regional Telematics Plan (PiTER) 2007-2009.

In 2007 the phase of **executive design** was completed, and in particular:

- The definition of the **technical specifications for the call for tender** for the definition of the technological partner of the Documental Data Center
- The **definition of the detailed legal, organizational and logistic structure**
- The drafting of the operative handbook and service contracts between the Pole and producing bodies
- The definition of the audit, monitoring and control policies.

**For 2008** the plan envisages:

- The completion of tender procedures for the outsourcing assignment of the technological component (Documental Data Center)
- The formal setting up of the Pole within IBC (Institute of Cultural Heritage)
- The signing of the service contracts with participating bodies
- Service start-up.

We are still waiting for the recognition by law-makers of the filing and conservation model defined by the project which seems at present – also in view of international experiences – the only feasible way to solve the problem of conservation, in view of preserving collective memory.
The DoQui Document Management platform

Region Piedmont, Italy

1. What is DoQui?

DoQui is a joint project that began in 2006, involving the Regione Piemonte, the Comune di Torino and the Provincia di Torino, aimed at designing a document management platform for the public administration authorities in Piedmont, to be developed using open source methods.

The platform is chiefly destined for the public institutions, but it is also designed to be made available and used by ICT companies, in order to “build” a community that, by sharing the project, can develop a model for use by the public.

The project is led by a Steering Committee which is responsible for organising and monitoring the creation of the IT solutions, drawing up the strategic framework of the project and defining the rules governing the community of participants. Apart from the three original institutions, the Steering Committee also includes the University of Torino and the Politecnico di Torino.

CSI-Piemonte, the consortium of public bodies that promotes innovation in the Piedmontese public administration, is responsible for the technical coordination of the project. CSI has also managed the creation of the first platform version and has headed the workgroup for the planning of the first applicative components.

2. Aims and objectives

The project intends to make use of the investments made by the public administration and to enhance the Piedmontese economic structure, in particular the ICT sector, the academic skills, methodologies and technologies which, beginning with the needs of the various institutions, can produce a solution that will find its space on the market. The innovative element is the setting up of an open source community with the task of creating the platform, managing and maintaining it and developing a public and private market for the solution found.

The purpose of the project is therefore not only to meet the needs of the public institutions promoting the scheme, but to forge new opportunities and new value chains. These could represent a first element in the creation of Piedmontese competencies in relation to open source, with the aspiration that they can be translated into an industrial strategy.

Briefly, the project intends to enact a public industry strategy based on:

- cooperation between Piedmontese public institutions and the academic world
- the dematerialisation and simplification of the administrative processes
- the use of open source solutions and technologies
- support for the growth of Piedmontese ICT companies.
3. Characteristics

DoQui proposes a solution:

- open source, to offer competitive advantage to the area and enhance all present competencies
- flexible and reusable in its components
- open to small and medium ICT enterprises in Piedmont in order to stimulate the local productive system and create new market opportunities
- that conforms to the national laws
- that is a joint effort, thanks to the creation of the community of public and private subjects called on to cooperate in the creation of the platform.

The definition of the requirements is managed jointly by an inter-institute workgroup (Regione Piemonte, Comune di Torino, Provincia di Torino, Politecnico di Torino, University of Torino and CSI-Piemonte), is multi-disciplinary (archives, organisation, IT system), with the consultancy of experts in the field at national and international level.

DoQui is an innovative project in:

- **The approach to document management**
  The solution proposed focuses on the concepts of ‘document’, ‘class’, ‘archive’, overturning the traditional perspective which considers the institute’s archive a by-product of the letters received/dispatched official book system. This will allow the institutions to work towards structured management of their documentation, dealing with ‘end-to-end’ dematerialisation processes independently from the protocol system.

- **The model of development**
  The activity of gathering the needs and encoding the functional requirements was carried out by a multi-institute, multi-disciplinary workgroup.

This has produced important benefits:

- the open source model guarantees lower adoption and lock-in costs than equivalent commercial solutions
- the shared and versatile solutions respond to the functional, organisational and operative needs of the heterogeneous administrative situations represented by the workgroup
- the ICT companies involved from the beginning of the project have the opportunity to acquire knowledge and to contribute to improving the choices and the products.

3.1 Acta

Acta is the application that makes the solutions for electronic document management available to the Piedmontese public authorities.

Acta will form, with the official book system normally present in the context in which the solution will be adopted, the core of document management system of a complex IT system.
The solution responds to the functions foreseen by the National Centre for Information Technology (CNIPA) shown in the diagram below:

Acta uses an engine for the management of digital content (Enterprise Content Management - ECM) called Index, based on a SOA (Service Oriented Architecture) infrastructural model that will make the ‘document management’ services available, it is web oriented and paradigms and technologies typical of the 2.0 web have been introduced, without compromising the accessibility of the system.

The diagram below shows the Acta and Index solutions and their relation with the external systems that, in a complex information system, participate in the management of the life cycle of the document flow within an organisation.

With reference to platform taxonomies, the pairing of Acta and the Index solution will constitute the ERMS (Electronic Record Management System) of the public institution.
The main functional modules of the DoQui Acta system will manage:

- classification scheme
- specific structured aggregation of documents
- documents
- long-term archive
- system security (user’s permission, access control list)
- audit trail.

The definition of these requirements is managed in a shared and joint way through periodic meetings, with the participation of the managers of the archives, ICT and organisation of the public institutions that fund the initiative (Archive Workgroup). The Workgroup, moreover, periodically meets with other experts on the matter at national and international level. Also thanks to these consultancies, the workgroup decided, in September 2007, to define its archive model according to the first indications available of the new Moreq2 standard.

3.2 An example of application of the Index platform

An example of the flexibility of the Index platform is the creation of an application known as ‘Cedolini on-line’ (on-line payslips) where the institution’s content management system is used to publish the employees’ payslips on the web. In this case the document system interfaces with the external personnel management procedures that calculate the salaries, elaborates the format to generate the payslips (file .pdf) which is then stored in Index with the necessary security and protection criteria (encryption). The electronic payslip is then made available to the employee in reserved form through certified web access and a secure channel.

4. The roadmap of the project

The application and infrastructure components were planned for the three-year period 2007-2009.

In 2007 the following results were attained:

- the involvement of all the public and private subjects involved and the definition of their roles in relation to the technical-architectural decisions;
- the definition of the functional requirements of Acta;
- the creation of prototypes to consolidate the technical choices;
- the realisation of the first version of the Index platform;
- the first experimental use by the institutions, independently of the Acta component (such as electronic pay slips for the Regione Piemonte employees).

By the end of 2008 we foresee:

- the maintenance and evolution of the Index platform (debugging, compliance, functional evolutions...);
- the release of the first applicative modules of Acta (second semester);
• the release of external applications for particular type of documents (e.g.: legal electronic invoice);
• activation of the external service of preservation according to italian laws;
• setting up of the community and availability of the collaborative tools on the site www.doqui.it.

By the end of 2009 we foresee:

• the conclusion of the development of Acta (first semester);
• the start of the training projects, system integration (migration of data, integration with certification systems, HR systems and support for start-up (first semester);
• entire system working at full speed (end of year).

5. Further developments

The development model, both organisational and technological, proposed by DoQui was presented to and shared with other Italian Regions dealing with the problem of document management and dematerialisation. In-depth studies and joint evaluations are underway in order to verify any possible re-use of the DoQui software, the Index platform and Acta in other public administration contexts with similar needs for document archive management.
Hungarian National Interoperability Framework (HNIF)

Péter Kiss,
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Premises

Within the e-Government 2005 Strategy, Hungary paid particular attention to the realization of electronic government services, mainly focusing on the common list of 20 basic public services defined by the EU. Services have been implemented on a high quality, which has resulted in that Hungary could skip from a file-closer position to the lead of the middle field in the ranking of EU member states. According to the UN country report of 2006, Hungary also made a great step forward among the countries of the world.

The independently functioning service systems, that have been introduced at the end of 2005, could not make any further development possible. The number of services had some increase in the past two years, and the quality of launched electronic services progressed, too, but these results have taken minimal effect on the indicators. As a consequence, Hungary has slipped back to end of the middle field in the EU member states’ ranking.

Analysing the reasons behind, we have found that the main obstacle for development is the lack of interoperability amongst departmental systems. In line with the public sector reform, the expansion of electronic public services has to be grounded on a new quality basis. Services related to independently functioning administrative routines have to be replaced by services related to life events. A basic condition of such services is to build connections amongst those isolated, independently operating electronic services that ensure data access related to different organizations, and the possibility of processing them without human intervention. Without creating an environment for technical and semantic interoperability, realizing this vision will not be possible.

In the light of the above mentioned facts, tasks connected to enabling interoperability are considered as priorities by the e-Public Administration 2010 Strategy. During the development of electronic public services, it is essential to define such requirements, procedures and standards which can be used uniformly, and ensure the realization of the necessary data transfer amongst different systems. On this very purpose is the Hungarian National Interoperability Framework going to be established, and - building on its segments - the interoperable public service providing systems will be developed.

The objective of the Hungarian National Interoperability Framework

The main objective with forming the Hungarian National Interoperability Framework is to define standards, requirements and regulations which guarantee the solid technical-semantic, monitoring, project management, IT security and application development methodology platform for the expansion and operation of electronic public administration.
Ensuring the fulfillment and consistent enforcement of these aims give adequate guarantee to having an interoperable, secure and up-to-date electronic public administration system, as a result of the development of independently launched departmental and local governmental subsystems.

Since the Hungarian National Interoperability Framework aims to creating conditions for pan-european services, we also take the results of the current elaboration of the European Interoperability Framework into account at our national level.

The content of the Framework

Certain elements of the Framework assure jointly the professional, technological, methodological background and competency, which is necessary to build a solid platform for electronic public administration services, as well as for the enforcement of requirements, standards and specifications of the solid platform in the central, departmental and local governmental subsystems.

For the sake of the above, the Hungarian National Interoperability Framework contains the following main chapters:

- Elaboration of process-describing methodology and toolkit
- Definition of technical and semantic interoperability requirements
- Definition of application-dependent IT security requirements
- Development of a methodology and application development framework
- Creation of the maintenance system for a standard repository
- Elaboration of project management methodology and professional monitoring.

Elaboration of process-describing methodology and toolkit

Our goal is to work out a toolkit for supporting formal description of processes and to elaborate a methodology for process modernization.

The electronization of public administration-processes does not automatically involve the growth of internal efficiency of public administration, or the rise of client-satisfaction. The building of electronic public administration - which is a top priority of European and national developing strategies -, has to be placed by considering the demands of citizens and businesses in order to realizing the service-providing state model, or rather to be able to save money by simplifying procedures and avoiding redundancies.

The main objective of the simplification of service processes is to reveal the possibilities of process integration and to cease possible overlaps and contradictions. The main aims are to develop procedures driven by client needs, to minimize client-side data providing and participation in administrative procedures, as well as to set administrative routines to life events and problems need to be solved.

It may come with a great leap forward in this field, if the improved electronization of the most often used public services continues in a comprehensive manner, which would aim to configure procedures for more simple services with less input on the users’ side.
Considering the above, the main objective is to work out a toolkit and methodology, which supports the renewal and possible re-regulation of public administration, the back-office procedures of public administration services, and the formalized description of certain processes under one single framework.

Solely a formalized description may be able to ensure unambiguousness, proper administration, variability and traceability. From an adequate formalized description not only the code can be generated automatically, but also can be overseen the consistency of processes or higher connections.

On the basis of the requirement specifications deriving from a solid framework, it is possible to create a uniform structure, as well as a measurement and service framework which supports flexible and rapid follow-up of changes of legislative provisions.

The effectiveness coming from sharing, simplifying and standardization by the means of connecting institutions, can be strengthened by the most comprehensive exploiting of the knowledge base, the service portfolio and the central infrastructure.

Further aim is to share the finalized methodology, tool and requirement system with the owners of IT projects with public administration bodies and potential suppliers. Therefore, relevant guides, model examples and education materials have to be drawn up.

**Definition of technical and semantic interoperability requirements**

Taking interoperability into account during the development process has elemental importance. In the long run, efficient and viable electronic public administration system can be imagined solely, if all stakeholders in system development adopt the requirements derived from the principle of interoperability. It is a general precondition to have a definition and publication of the requirement interoperability framework, as well as making correct methodology guidelines.

As widely known, the concept of interoperability does have several levels. In the course of the elaboration of the Hungarian National Interoperability Framework, our main objective is to work out the requirement framework related to technical and semantic levels. The elaboration of organizational interoperability on the political level is integrated into the state reform program under the title of “modernizing public administration”.

The technical level practically means establishing communication amongst concerned subsystems. Standards, recommendations and other informative materials describing different communication protocols, security solutions and basic data formats belong to this level.

The semantic interoperability level prescribes equal interpretation of data transferred amongst certain communicating subsystems, where this prescription must be achieved. This level contains mainly the definition of different standardized data formats, as well as data schemes used in the framework.
In the course of execution:

- specification and regulation of interoperability framework requirements;
- methodology and procedure of certification and proceedings;
- methodology guidelines for supporting the development on interoperability;
- collection of standards and regulations for the technical interoperability level, and for central, consulting and local systems;
- collection of standards and regulations for the semantic interoperability level, and for central, local and professional systems will reach completion.

Definition of application-dependent IT security requirements

Systems used in public administration must meet the demands of IT security requirements. IT security can not be interpreted without their concrete environment, it is important that security issues appear in every phase of the process of shaping, development and operation, it can not be realized separately from the process – nor could it be done afterwards.

It follows that, in development projects, IT security steps and requirements, as well as theirs monitoring and enforcement must be drawn up, Prescriptions and methods must be elaborated in development projects –in line with the legal environment.

Based on the requirement framework, resources must be allocated to planning, implementation and operational steps related to IT security in development projects.

The requirement framework:

- must consider legal environment;
- must proceed from best practices, based on national and international standards;
- must take into account the operational environment, as well as the technological and working specialities of the field;
- must cover the whole lifecycle of operation and tendering, i. e. planning, development, implementation, testing, operation, maintenance, control, monitoring and audit;
- must be well structured;
- must require risk-based approach;
- must cover the issues of the continuity of the course of affairs;
- as well as to cover its own lifecycle and management.

Considering the above, the HNIF contains an IT security requirement framework of electronic public administration projects, the security planning guide, basic security requirements in the field of service management and operation, the method of enforcement of the IT security requirement framework, the requirements of IT security policy, strategy and regulation together with different guides for supporting the definition of security levels and the description of technological requirements related to different security levels.
Development of a methodology and application development framework

The main objective is to develop such application development framework within an adequate development toolkit and methodology, which act to the service-oriented operational mode and system architecture.

The conditions and requirements of the development of the electronic public administration system are the following:

The development of electronic public administration is a long-term challenge the government executes on a coordinated way, along with a regularly supervised strategy. Actual tasks demand the integration of existing subsystems in electronic public administration, because numerous inter-subsystem services are listed among the aims to reach. At the same time, several development projects related to subsystems start, so the integration must and should be executed step by step in the meantime.

Subsystems, which consist part of the integration, are supervised by different organizations, therefore it is practical to aspire flexibly linked subsystems during the integration. Besides keeping the independence of the subsystems, this is also important to securely set the connection surfaces. The integrated systems must be open, since more and more connections can be expected by the national actors (e.g. local governments, regional centers). Furthermore the need of joining to pan European services requires the possibility of cross-border connections.

Integrated systems must be easily variable, because the legislative provisions change rather frequently and projects running side by side can bring significant changes in the legal and organizational environment. Users’ needs and the quality of the services must be the main aspects of development.

In the course of integration, only those solutions may be applied, which can ensure security and protection of personal data. According to international experiences and professional trends, the integration of large systems with altering functionality, that require flexible enlargement is recommended to implement with Enterprise Architecture (EA) approach and its supporting toolkit. This approach has been used in the course of the development of public administration systems in many countries with developed electronic public administration around the world. In the case of system architecture and development technologies, the Service Oriented Architecture (SOA), the Enterprise Service Bus (ESB), as well as the Service Oriented Enterprise (SOE) approaches are recommended.

Nevertheless it is important that the application development of the central system and its subsystems take place on a modern technological basis with state-of-the-art methods and instruments. In this regard, principally such instruments, technologies and documentation methods (UML, MDA) are recommended, which support model-based, object-oriented development. The development framework can support integration and application-development tasks by solid principles.
Creation of the maintenance system for a standard repository

It is a very important aspect, that its stakeholders, the staff of public administration organizations and also the potential developer companies be aware of the elements of the national interoperability framework. In the interest of the above mentioned, a standard repository will be created simultaneously with the shaping of the framework, defining the structure and tasks of organizations making operate this framework, as well as the infrastructure needed. The repository will be of use for the standards’ publications, requirements, specifications, recommendations and other informative materials necessary for the development and operation.

This standard repository will store all essential documents for the framework, particularly those focusing on the following fields: architecture, technical and semantic interoperability, process description and process-modeling, as well as IT security.

In respect of the framework, every technologic and other instructions have well defined lifecycles. The aim is to create an organization and back office-infrastructure, that effectuates the management and publication of the whole lifecycle of information and documents stored in the standard repository on an appropriate level.

Elaboration of project management methodology and professional monitoring

The electronization within a comprehensive framework and the central co-ordination and supervision of complex public administration procedures determinated by numerous actors, requires a well organized project and methodological operation. Holding together departmental development projects, demands the creation and upkeep of a coherent public administration standard project-charter.

To ensure the efficient, citizen-friendly operation of public administration and public services, which are based on state-of-the-art principles, electronic public administration has to be significantly improved, heading for the standardization of the flow of affairs on the public administration level, and services now must be taken closer to society.

The expression „electronic public administration“ has become a collective concept today that tries to grab more, simultaneously running processes. Besides others, we include the comprehensive reform of public administration and the modernization of technology.

The modernization of technology inter alia means the standardization and further development of methodologies related to the shaping, development, operation (together: maintenance) of products and/or services. The methodology includes the description of activities related to the maintenance of the product or service, their order, the applied technologies, methods and tools, as well as the utilized and created working documents.

As usual, there is no comprehensive methodology, which could provide a perfect or, at least, satisfying methodology for the formation of information technology systems. The reason is that the toolkit, the environment, as well as the realization of the applications are extremely heterogeneous. However, narrowing our scopes to electronic administration, and the instrumental background to only modern internet technologies, we have a good chance to define a flexible methodology that can be used at the required area.
The creation of the product/service is passed off in the frame of a project. The project includes all efforts, organizations, resources that are necessary for the creation of certain products/services. The methodology contains technologies and manners related to the creation and implementation of the project.

Examining the methodologies and their practical usages, we can find that the less elaborated parts of the methodologies are related to the measurement of the scope and to the organizational, regulatory respects of the arrangement and transaction of the project. The up-coming methodology guide and supporting framework aim to eliminate these deficiencies. In this frame will the methodology related to project management and transaction be prepared, as well as the manners related to the selection and measurement of the product/service and also the launching method.

During the execution of those tasks associated to the development of the framework, a study will be conducted, that will contain an analysis of the current project management, and the vision of the desired project management will be defined. Requirements will be formulated and the meta-model of project management will be set up. This all will be supplemented by educational materials, demos and tutorials.

### Continuous IT coordination and supervision of departmental electronic public administration projects

The objectives of electronic public administration are fulfilled, if the central, regional and local public administration developments are based on a defined professional ground that can be known by all stakeholders. In that way, interoperability and IT security of subsystems can be assured, and the development happens with state-of-the-art methodologies, forming flexible architecture and using efficient technological tools.

A cardinal problem may be that certain preferential development projects only handle their own tasks, just as if they were not subsystems of a complex, coherent system. On the program level, the creation of a managing, coordinating and supervising central organization is indispensable, since the implementation of electronic public administration and local government systems only can be successful in the case of tight cooperation and coordination amongst the stakeholders.

In the case of those complex and shared IT system developments, where the system to launch has several subsystems; the development is managed by more, independent public administration bodies and they provide services for a wide range, a strict and consistent criteria method must be created, and the logical course of the development needs to be followed.

In the case of electronic public administration and local government service developments, these requirements mean that the service procedures, as well as requirements like interoperability, IT security or development methodology have to be defined first, and after that can begin the planning and implementation of certain central, departmental and local systems.

It is useful to work in close co-operation with the prioritized project owners, to form the minimal necessary range of those standards, regulations and requirements, whose
fulfillment can ensure that a secure and interoperable electronic public administration come into existence.

For assuring success of electronic public administration developments, it is not sufficient to apply IT development methodologies and technologies that follow harmonized and comprehensive aspects. To reach success, it is essential to ensure proper operation of developed systems. For this the requirements and conditions of later operation must be defined previous to the development, at the phase of project proposal and supplier selection. In line with the development of the systems, according to the specified operational requirements, and operational tasks of the developed system to support, the tasks and responsibilities related to the operational period of the supplier and the procurer have to be elaborated in details, together with the resources needed for the mentioned.

Based on the above described principles and content, the building of the Hungarian National Interoperability Framework is under way and its documents are expected to be completely prepared by the end of the year. During the compilation of the framework documents, we consider the experiencies and information gained in the course of elaboration of documents in the frames of the EU IDABC Unit, namely the documents European Interoperability Framework version 2.0, jointly with the Semantic Interoperability Framework. The Hungarian National Interoperability Framework is developed in accordance with the relevant requirements of the EU, while considering our national specialities.

Our achievement is to ensure necessary conditions for public administration bodies to be able to develop their systems based on comprehensive principles and standards, systems that operate safely and efficiently, which, at the same time, are able to consider users’ needs of electronic public services on a highest level. It is an important aspect, that these systems and electronic services should become able to cooperate with European systems and services, ensuring the forming of electronic services at the Pan-European level.
Innovation in Business and Citizen Services
Knowledge, Skills and Inclusion.
The True Path to Transformational e-Government

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Abstract

The outstanding developments of Information and Communication Technologies in the course of the last decade, have given place to an enormous potential for change and modernisation, which is especially relevant for the public sector. The e-Government platforms that are enabled by this new technology can lead to a true transformation of government, citizens’ relations with public authorities and public service delivery; thus increasing efficiency and trust in the public authorities. Yet there are obstacles which are impeding this transformational potential from being fulfilled. Public administration has to be empowered with knowledge, skills, leadership and strategy to conduct the internal changes deemed necessary. On the citizens’ side, authorities have to acknowledge that a true transformation in government empowered by technology does not have much chance of succeeding if there is no guarantee that the maximum possible number of citizens is included in this technology. Thus, this paper will deal with the importance of knowledge and inclusion in fulfilling the transformational potential of e-Government empowered by the newest technologies.

1. E-government for the Future

“The best way to predict the future is to invent it”
Alan Kay, American computer scientist

Looking back only one decade go, we can see how the developments in ICTs have changed many aspects of our daily life, both professionally and personally, from our way of socialising, communicating and sharing information, to our way of shopping. Moreover, in the last two or three years, the speed and scope of those changes seem to have increased as a myriad of networking platforms (otherwise known as Web 2.0) have appeared on the stage. To name a few examples, applications such as Youtube.com, blogs, wikis or Facebook have reinvented the way of surfing the internet; moving from passive spectator to total interaction. A new way of online collaboration and networking is consolidating thanks to the web 2.0 capabilities (Tapscott et al. 2007). Generally, innovation powered by the most recent technological advances takes place first within the private sector then within the public sector. Companies live in a much more competitive world than governments, and they know they have to keep up with the pace marked by technology. Nevertheless, policymakers, scholars and practitioners have pointed out the fact that making positive use of all these new technological possibilities opens the door to a serious transformation of the way government works and its interaction with citizens; reconceptualising and “upgrading” e-Government as we know it today.
2. What is Transformational e-Government?

“The world is changing around us at an incredible pace due to remarkable technological change [...] The future of public services has to use technology to give citizens choice, with personalised services designed around their needs and not the needs of the provider”.

With those words the UK’s former Prime Minister, Tony Blair, introduced in 2005 his country’s strategy on Transformational Government Enabled by Technology. Around a decade ago, when the first e-Government websites were launched, they were organised through the so-called billboard system. This system simply allowed the citizen to read the information provided by the authorities on this “electronic billboard”, only with the added comfort of doing so from any computer enabled with Internet connection. With time, this initial billboard system evolved into thematic portals, which marked the first milestones in the development of citizen-centric and one-stop-shop e-Government platforms. Nevertheless, it is perhaps in the last five years in which the Internet has experienced the greatest innovation since its origins: a true revolution of interactivity where the older roles of active content-setter and passive reader (client) have eroded; thus transforming the Internet not only into the platform per excellence for sharing information and networking, but actually the net has become a true platform for service-delivery. One needs only to think of the way in which it is possible today to buy software or audiovisuals online, getting the product delivered right away on our computer without having to purchase a physical CD or DVD, or even without having to leave home. This indeed has great potential for development within public administration. In the same way that we can have a software product delivered through the internet, why should it not be possible to have a registry certificate, a personal record, a university lecture, or to submit and sign electronically a passport application?

At this point, one can already begin to realise what the true potential of Transformational e-Government is. For citizens, it can reduce burdens and simplify the delivery of services which have a true impact on their lives; it can grant personalised access to Government services without having to know how the Government works; and it can improve citizen satisfaction by having their administrative work done faster and efficiently.

In addition governments themselves, not only in their relations towards the citizens, can benefit from this. For instance, by means of networking platforms, it becomes easier to create more evidence-based policy-making though networking, to make services more responsible and user-focused, to increase diversity in civil service recruitment, etc (2007).

Embracing this concept of Transformational e-Government, several initiatives have been launched as milestones or documents gathering the government’s strategy to retrieve the maximum profit from renewing their e-Gov platforms. Perhaps the most famous one to date was launched in the UK in 2005, under the title “Transformational Government: Enabled by Technology.” The initiative focused on improving the delivery of the public services by adapting them to the needs of the 21st Century primarily by the means of technologies. The foreseen transformations to achieve the objectives were threefold: firstly, the delivery of public services through IT had to be designed around the citizen, and not around the authority (citizen-centric e-Government); combining it with the use of modern delivery channels to improve the customer experience, achieve better policy outcomes, reduce paperwork burdens and improve efficiency by reducing duplication
and routines. Secondly, the strategy is envisioned for Governments to move towards a shared-service culture: standardising and simplifying procedures, fomenting the culture of sharing and working together, stressing interoperability. Finally, there must be a strengthening of the Government’s professionalism in terms of planning, delivery, management, skills and governance of technology- and knowledge-powered change (UK Government 2005).

Other strategies exist on the same line, such as for instance the “e-Citizen Charter” of The Netherlands. This Dutch initiative consists of a series of points which outline a general future view on e-Government from the perspective of the citizen. It foresees that e-Government should provide the citizen with a choice of channel for contacting the public administration, guarantee transparent public sector, comprehensive rights and duties, personalised information, convenient services, comprehensive procedures, trust and reliability, considerate administration, accountability and benchmarking and, finally, involvement and empowerment of the citizen (Government of the Netherlands 2005).

Both mentioned incentives give an excellent insight to the meaning and scope of the concept of Transformational e-Government, which already raises the question of which are the key enablers and possible obstacles for achieving the goals set in those strategies.

As we have already seen, technology itself is the key enabler per excellence for the fulfilment of Transformational e-Government strategies. At the same time, it is important to acknowledge that constraints for actual transformation exist, and have to be dealt with. Those constraints are, put simply, a possible lack of leadership within the administration aiming at achieving new a generation of e-Government. Leadership is the major enabler for change in public administration, since it has to guide the organisation to adopt new ways of working, of retaining and organising its knowledge and to orient work more towards technology. Also, a lack of skills allowing administration workers to be at the same pace as the technological developments would suppose a major hindrance for achieving such a goal. Besides this, one needs to bear in mind that in order to allow every single citizen to benefit from ICTs, infrastructural modernisation is not enough. Inclusion is a key topic in this case, since an important part of the population, especially the older generations, has a comparative disadvantage vis-à-vis the younger generations in computing skills.

In relation to knowledge, skills and inclusion, already in the year 2000, the European Council of Lisbon set out the Lisbon Strategy – a development plan aimed at promoting economic dynamism for the European Union. The Strategy was based on three main points: innovation as the motor for economic change, promoting the shift towards a knowledge-based economy and sustainable economic growth, with the objectives of creating more and better jobs, and thus, greater social cohesion. In the Strategy, the main challenges faced by modern European economies were identified in the areas of productivity, employment, ecological sustainability, knowledge and changing demographics; thus providing European governments with a basis upon which those initiatives they estimated to be relevant could be adopted with the aim of ensuring competitiveness and preparedness of European economies towards the future. Thus, we can now see how those objectives can be put in place in organisations of public administration.
3. Empowering Public Administration with Knowledge

Knowledge is power, says the maxim, and this is especially relevant in the case of today's public administration. Reaching the goals of Transformational e-Government makes it necessary to re-engineer public administration organisations, to empower them with knowledge and to move them to the culture of shared services. The role of government itself has undergone profound transformations during the past decades. The traditional role of governments, which had been stable for centuries, was one of monopoly over all aspects of planning and the developing of all spheres of life of states. However nowadays, domestic and international issues have increased in complexity, and governments are more dependent on networks, other authorities, research or even civil society. This increased interdependence requires profound changes, and yet, nowadays, many authorities do not have the appropriate skills, managerial strategy and competences, as well as flexibility, which are required for working in this milieu of greater collaboration (Tapscott et al. 2007). There is a need for an “organisational revolution” empowered by knowledge. Today's Organisational Change literature points out the necessity of developing encompassing strategies that involve all employees in the organisation and leave out the traditional top-down hierarchical approaches. A first step is to extend the so-called New Skills throughout the organisation, so that all employees learn from them. Successfully introducing knowledge-centred changes and modernising public administration is a matter that requires a thoroughly designed strategy.

3.1 The New Skills

The New Skills are a comprehensive group of new competences and knowledge areas of special relevance for organisational modernisation. The core of the New Skills encompasses innovation capacities, project management skills, leadership skills, contractual management, basic and advanced ICT skills (or simply skills), technology management and process management, information and knowledge management, communication and interpersonal skills, web editing and writing skills, flexible working methods, networking capabilities, and human resource management skills. Those are, thus, points that acquire different degrees of relevance depending on both the hierarchical rank of the employees and the level of proficiency required for the fulfilment of their tasks.

In the first place, before providing the organisation's personnel with access to acquiring New Skills, it becomes important to acknowledge the distinct roles of leaders and employees. A crucial task in an organisational change strategy will be to ensure that on the one hand, leaders are instructed in the New Skills relevant for them to provide the energy and entrepreneurship needed for the success of the modernisation process. Employees, on the other hand, will need to be provided with those skills dealing with the specific functions of their jobs or with the new demands that will come up after the completion of the modernisation process.

For leaders, the most significant New Skills to be acquired are those in relation to project management, process management, communication and interpersonal skills, networking and human resource management skills. In their case, it is necessary to update their leadership competences in a direction that allows them to control the dynamics of the modernisation process while at the same time creating a working environment in which employees feel engagement and ownership of the modernisation
being carried out. It is important for them to be able to manage the processes of change, ensuring some continuity and avoiding radical introduction of reforms. Moreover, since today's working environment in European Public Administration is a fast-changing one, in which individuals are increasingly demanded to take over responsibility for their self-management, have higher responsibilities, have to deal with new unexpected situations, etc., leaders ought to be prepared to give new space of freedom to their employees without losing overall control.

In the case of employees, their needs for new competences depend more strictly on the specific task they perform and their degree of responsibility. However, some of the New Skills have direct relevance for the whole staff body, and therefore, their acquisition is recommended at all levels. Those competences are firstly, those referring to interpersonal and networking skills. In today's government working environment, traditional top-down unit-based organisational structures have been increasingly replaced by project-based organisation, in which employees work in different teams and have a greater need for networking and group-working skills. Therefore, it is important that all employees are introduced to the basics of personal management.

Secondly, self-management skills acquire greater importance in project-based organisations: often, a team or an individual is given a specific task or project, resources, quality requirements and a deadline. However, details on how, where and when the work is carried out, as long as the previous requirements are met, are left to the workers themselves. Therefore, coping with this new responsibility, and perhaps stress, raises the need for self-management that has to be acquired as a skill in its own right.

Thirdly, the command of ICT has become an indispensable skill for all employees of public administration. This area of competences, better known as skills, encompasses a whole range of capabilities related to the operation and application of ICT systems by individuals, from the basic skills, such as using a word processor or a spreadsheet, to more advanced and specialist skills. Especially in the last decade, ICT has become an integral part of both business and public sector work. Its use can change the traditional role of workers by taking over routine functions and leaving them free to undertake more specialised and interesting tasks. Moreover, as e-Government is being implemented in European public administration, it transforms the way citizens interact with the administration and it modifies the working settings of public employees, requiring them to gain new competences. Therefore, making sure that all the employees have at least a solid command of the basic eSkills, is an excellent way to guarantee the success of a knowledge-centred modernisation strategy and actual preparedness of employees to cope with the renewed demands of their jobs. On the other hand, employees with more specific tasks may require advanced or specialist eSkills, such as software development, web design, database design, use of specialised programmes, etc. In such cases, the necessary eSkills should be identified and provided, as part of the organisation’s modernisation strategy.

3.2 Organisational Change and Modernisation Strategies

Having seen at this point the core skills that are necessary to achieve a truly knowledge-based modernisation of an organisation, let us now proceed to review the main mechanisms that enable the transference, acquisition and management of knowledge.
In the first place, for public administration as well as for many other kinds of organisations, it is desirable to integrate knowledge acquisition as a matter of Human Resources Management (HRM) strategy. This way, the organisation assumes the responsibility of investing in the employees’ skills acquisition, and at the same time, renews its criteria for recruiting new personnel.

A second important point is to locate the gaps in the organisation and to plan how to overcome them by promoting lifelong learning programmes and encouraging the participation of employees in training. Lifelong learning was recognised as a core point for the Lisbon Strategy of 2000, and encompasses a broad area of knowledge-acquisition both for personal, and for employment-related purposes. It can take place in a variety of forms and environments inside and outside the formal education channels. Although lifelong learning can cover a vast range of topics, those subjects of special interest for public administration vary from the more traditional educational programs (i.e. postgraduate degrees offered by universities, conferences, seminar programs, etc.) to the newest offers based in best-practice exchange, and sharing of experiences and organisational learning.

The third point deals with the Knowledge Management Strategy itself. It is not uncommon that organisations hold vast amounts of valuable knowledge that, however, cannot be profited from due to a poor or non-existent Knowledge Management Strategy. Information simply gets lost within the organisation. Proper management of the organisation’s own resources and existing knowledge is a task of the utmost importance, since it has a direct impact on productivity and quality by allowing effective use of all resources available to the organisation. This is an issue unfortunately sometimes left aside; ignoring the improvement it would create for the organisation. In order to find a solution to this problem, organisations may consider designing Knowledge Management Strategies that, moreover, will have a second utility as data-gatherers for self-assessment of the organisation’s performance.

Organisational Learning theories provide a sound basis for understanding the processes through which an organisation adapts to changing environments gaining valuable knowledge and expertise. With a proper Knowledge Management Strategy, the knowledge can be analysed to improve the performance of the organisation. There are multiple resources available for that matter, from keeping internal periodical publications comprising the recent achievements of the organisation, to the setting up of database systems or the use of Intranets. Opting for one or another mechanism remains at the discretion of the organisation, according to its needs or available resources.

The use of Quality Management methods to ensure that all activities or changes implemented within an organisation are efficient and effective in relation to its characteristics and its performance are enormously relevant for public administration. Quality Management methods may adopt multiple forms: for instance, the frameworks developed by EFQM (European Foundation for Quality Management), CAF (Common Assessment Framework), and others. Through its use, it is possible to detect weak and strong assets of the organisation and thus, address the need for changes more effectively. Thanks to its direct usability for posterior self-assessment, implementing the use of Organisational Learning mechanisms will have a double value: on the one hand, ensuring proper Knowledge Management within the organisation, and readiness for self-assessment on the others.
By using the records kept, the organisation will be able to analyse periodically which areas have been the improving and which areas need to be given special attention. The practice known as Bench Learning has the basic aim of finding better ways of doing things with a view to improving overall organisational performance by seeing the results achieved by other organisations. The relevance of Bench Learning is that, unlike classical benchmarking, it does not necessarily search for comparable organisations to define indicators and from those, make direct comparisons. Instead, it focuses more on the process of learning from others rather than on comparisons. The goal is to learn from the strengths of other organisations, from the things they do well, and to search for inspiration for our own work while learning how to avoid mistakes. Furthermore, the use of Bench Learning encourages sharing of good practices, not necessarily from similar or directly comparable organisations, but also by seeking to get to know the achievements of dissimilar partners. This way, by implementing in our own organisation what is learnt from the Benchmarking, we will be creating our own good practices.

4. Digital Inclusion – No One Left Behind

Having seen the importance of empowering public administration with knowledge, it is now the turn to analyse the role of digital inclusion in the way towards Transformational e-Government. Bringing e-Government to a further step and benefiting from its transformational potential has one main constraint: the digital divide. This concept refers to the gap between those people with effective access to digital and information technology and those without access. It includes the imbalances in physical access to technology as well as the imbalances in resources and skills needed to effectively participate as a digital citizen.

In 2006, the Riga Ministerial Declaration set out the goals to be achieved by 2010, which inspires the eInclusion programme of the European Commission. Those main four objectives were, first, reducing by half the gaps between average EU population and older people, people with disabilities, women, lower education groups, unemployed and “less-developed” regions in Internet usage. Secondly, extend broadband coverage to 90% of the EU’s population. Thirdly, reduce by half the gaps between the EU average population and groups in risk of exclusion. And finally, increase compliance with accessibility guidelines by public websites. However, despite significant advances being made in extending infrastructure and affordable access; today the existing differences in internet access and usage among the different European countries remain one of the greatest challenges to overcome in the fields of ICT and, thus, to extend the potentials of Transformational e-Government throughout the EU. Nevertheless, the fulfilment of most of the goals for 2010 is progressing successfully (Commission of the European Communities 2007).

The European Commission sees eInclusion as a key enabler of the goals of economic and social progress set for 2010 in the Riga Declaration, and thus also of the Lisbon agenda. Parting from the idea of transforming the risk of digital divide into “digital cohesion” and opportunities for every citizen to benefit from technology, eInclusion focuses on bringing the advantage of the Internet to all citizens, putting special emphasis on the risk groups. The main activities covered under eInclusion policies are divided into eAccessibility and eCompetences. The first, eAccessibility, deals with promoting assistive technology and universally accessible software, websites, etc. focusing on the “Design for all” principle.
This is, websites or applications designed to be friendly to users with disabilities, for instance enabling colour contrasts, text-to-voice technology, etc. The latter, eCompetences, makes reference to skills, knowledge and attitude relevant to education in the context of an inclusive information society.

Furthermore, national authorities have also been active in promoting digital inclusion, in many cases launching national strategies aimed at bringing the Internet to the widest possible range of the population. Those national programmes include strategies designed according to the specific needs of each one of the countries, regions or areas, ranging from promoting cheaper access to the internet, promoting courses for disadvantaged groups, to setting up local internet centres or wireless access for remote areas.

Conclusion

This paper has given an insight to the potentials that the newest technological developments give to the future of e-Government. Indeed, the future integration of Web 2.0 tools into e-Government, together with maximising the usability of the Internet as a means for public services delivery to the citizen, has enormous possibilities of increasing efficiency, satisfaction and trust in government and public administration. However, it is clear that technology, although it has an undeniable importance, it not the only enabler in play on the road to Transformational e-Government. Conversely, the way towards Transformational Government has to take into account that, on the one hand, a certain level of organisational change is required within governmental organisations, requiring a change in organisational culture, in knowledge management techniques, coordination and teamwork; and that, on the other hand, authorities have to care for the inclusion of the maximum of citizens possible in the eEnterprise.

The path to Transformational e-Government, thus, rather than radical transformation, is to implement gradual changes involving all levels of government and citizens, aiming at ultimately reaching the goals envisioned strategy.

NOTES

1 See the complete Lisbon strategy at http://europa.eu/scadplus/glossary/lisbon_strategy_en.htm
2 For more information, please refer to EFQM website at http://www.efqm.org
3 For more information, please refer to CAF website at http://www.eipa.eu/CAF
References list


Bibliography


Meeting stake-holders’ needs through a more efficient Public Administration

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Efficiency in Public Administration is vital for European competitiveness

The needs, and correspondingly the opportunities, put forward to European Governments by the international competition demand that Public Administrations engage themselves in a significant increase in their performance. Goals for this effort can be identified along three lines: a) reduction of administrative burden which causes costs (money and valuable time) faced by citizens and enterprises; b) reduction in the costs faced by taxpayers for superfluous inefficient and lately bureaucratic structures; c) promotion of involvement of entrepreneurial forces in the accomplishment of functions directed to public in general, that do not necessarily imply that Public Administration be directly engaged in the operation, while rules, standard and monitoring are the tasks that public entities should take care of directly.

Besides pursuing the productivity of the economic structure domestically Governments are engaged also at international level. It’s now universally recognized that competition in the world wide arena is not only among companies but also among integrated systems that encompass for any country industrial companies, financial entities, communication agents and last but not least, public entities with different functions ranging from promotion to information, to assistance and to regulation of delicate aspects such as property rights, safety and eco-dumping or social-dumping in international competition.

Quality, time and costs are the leading variables, just the same as in the business world

It’s self evident that the variables controlling performances in public sector are just the same as in the private sector: quality of results as primarily indicated through benchmarking, time of response as compared to the flow of decision making and the operational time of the stake-holders (it’s not by chance that project management is not a tool widely used in Public Administration) and costs faced to run the bureaucratic activity. The single synthetic (and most important) variable is coherence with expectations of stakeholders.

Lack of competition is the difference but competition can be stimulated also in public sector

Lack of competition is the major reason why, even in the presence of such a basic analogy between the private sector and the public sector, this last doesn’t perform, frequently, at levels comparable with those experienced in the private sector.

Lack of competition implies lack of stimulus to ameliorate in order to avoid to be expelled out of the market. To overcome such a situation elements of competition (or at least of comparison) should be introduced whenever possible. This includes: a) sharing of
responsibilities amongst different branches of public administration in order to create alternative for stakeholders and consequently to establish cross checks and intercalibration; b) providing occasions, such as call centers or “delivery units” devoted to register opinions and suggestion of the stakeholders.

Another major contribution to the introduction of competition in the public sector is the use of outsourcing of non core activities, that should be entrusted to the market under proper contract conditions in the spirit and reality of cost effectiveness and flexibility. Attention should be given also to any other form of cooperation of the public sector with the private sector enforcing the concept of constellation of roles which is based on a sharing of responsibilities that, keeping the necessary distinction of duties, is based on pursuing goals agreed upon in advance.

It's hardly to be underlined that special attention must be given by the management in public sector at all levels, starting from top levels, to specifying clear objectives and to monitoring performances.

**Systematic use of metrology is the tool to be used, in particular when competition is not viable**

Whenever possible, numerical indexes should be used to express goals assigned to branches and individuals. There are some objections against the possibility of a wide use of numerical indexes in monitoring the performances of public entities, the major argument being the difficulty in defining quality in many instances of activities under the responsibility of the public sector. This sort of polemics should be discontinued for several reasons: a) is more and more evident from practical experiences in different countries, as tested in some instances also by international organizations, that quality can be properly defined and measured even in delicate sectors such as health care or social services; b) even if it’s true that perfection in measuring quality is not always possible, this is not a good reason why to reject any reasonable approximation to an “ideal” measurement (let's call it a proxy).

Quantitative indicators are necessary to monitor trends vs. time in the degree of accomplishment being experienced. Performance records, measured systematically can be useful also in intercomparisons, as already said, and in some cases even to show stakeholders that their complaints are not fully justified.

**The necessity for feedback like in any lively systems: incentives and disincentives**

There is an even more important motivation for the introduction of indicators: they are a prerequisite to ensure transparency and credibility in determining the degree of fulfillment of goals also to the purpose of establishing ranking and consequently of assigning incentives and disincentives. The presence of incentives and disincentives is a mechanism well known in biological systems, applicable in artificial control systems as well as in complex organizations to make them motivated to learn from experience and to adapt to evolving external conditions. Public Administration must be forced to do so by top level responsible leaders, including the political level, through not only the rules they impose on the system, but also through their continuous behavior in enforcing these rules.
Starting from an analysis of expectations allows also a rethinking of priorities too often dictated by the internal vision of bureaucrats

More in general to meet stakeholders’ needs it’s necessary that Public Administrations engage themselves in systematic actions of reanalysis of real expectations of stakeholders that too often are given for granted even when they are insufficiently documented and/or rapidly evolving in time. The perception of bureaucrats directly involved in performing the activities is an important source of information but not self sufficient. It’s inevitably affected by “historical conditions and internal constraints” and does not necessarily represent the recent trends in the expectations of citizens and enterprises. Priorities amongst the different activities performed and amongst the different branches of the administration should be redefined accordingly, in terms of allocation of resources, basically human and financial resources, of course, but also of other type of resources such as engagement and communication strategy of top level decision maker.

Technology can give a major contribution but simultaneous changes in processes, structures and rules with an integrated approach are even more important

One should not underestimate the importance of Information and Communication Technologies in improving the performances of Public Administration and particularly in meeting expectation of stakeholders. Definitely ICT may improve efficiency in back-office and provide faster and more widespread delivery in front-office. Therefore, any effort in expanding the use of such technologies should be welcome. Amongst the many advantages of the diffusion of ICT one should be underlined: the dematerialization of economic activities which is not limited to the reduction in the use of paper (which is a valuable result per se) but encompasses reduction in the use of transportation and consequently energy (not to mention logistics in general), including environmental aspects.

Some major tools of horizontal value in back-office activity deserve particular attention: handling of flow of documents, data mining and search engines, knowledge management on one side and project management, resource management on the other side. All of them belong to the context of business intelligence and in perspectives to a sort of “controlled sharing of information and resources” that substantiates in the public system - but also in the interaction between the public system and the corresponding stake holders - a sort of social network, such as is been experienced in the most advanced sectors of the business community. In this context safety in all its aspects should be given maximum attention.

Nevertheless it should be acknowledged that the adoption of ICT is not sufficient to ensure the degree of improvement which is necessary to ensure productivity and hence competitiveness of the economic system. Simultaneous changes are also necessary in administration processes, in structures and in rules aiming at a wide action of re-engineering based on simplification, stream-lining and avoiding duplication of efforts. Only a multiplicity of lines of action that takes advantage of the technological innovation to introduce a more basic type of innovation in the very essence of bureaucracy, according to the indications expressed above, can be expected to deliver the expected results.
Final remarks

Along these lines the new Italian Government is moving with decision starting from an information campaign, an extensive revision of rules pertaining to public administration and the identification of priority in pursuing the implementation of new technologies and in the diffusion of best practices. First results are already coming, following a mix of a pragmatic attention on short term results with a more strategic mid-term vision.

Cooperation with other countries is considered by Italy of major importance. The international dimension encompasses exchanging experiences and in particular identifying and sharing best practices, avoiding duplications and facilitating international transactions. The collection of papers from different countries collected in the volume "Improving Performance and Innovation in P.A.: analyses and researches among European e-government experiences" will definitely contribute to identify concrete opportunities of joint engagements for the development of a European Public Administration performing as our stakeholders demand for their individual and collective needs substantiating the sustainable development that we all pursue.
Electronic democracy and deliberative consultation on urban projects

The Congress of Local and Regional Authorities of the Council of Europe
Chamber of Local Authorities

15th PLENARY SESSION
CPL(15)3REP
22 April 2008

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Summary

Public authorities at all levels of governance are having to face up to public disengagement from politics and the public's lack of confidence in politicians and political institutions. These trends call for renewed democratic practices, the provision of greater transparency and reinforced citizen participation in decision-making processes.

Electronic communication tools can significantly improve deliberative consultation on urban projects. They enable the presentation of complex issues in a high-quality and comprehensible manner thereby facilitating transparency and the expression of individual and collective viewpoints.

However, cyberdemocracy requires a learning process and indispensable changes in attitudes and behaviour on the part of the authorities, the public, associations and business. Elected representatives themselves try out new tools which encourage dialogue with citizens thereby reinforcing their representativeness.

Preamble

This report forms part of the Council of Europe's work on “Good Governance in the Information Society”. It is based on the contributions and discussions at the Symposium on E Democracy organised by the Council of Europe and the Congress of Local and Regional Authorities on 23 and 24 April 2007. It also provides a contribution to the Council of Europe’s 4th Forum for the Future of Democracy (Madrid, 15-17 October 2008). The need for democracy and public participation are the focus of current political debate. Local authorities are experiencing great technological transformation and have a key part to play in spreading the use of information and communication technologies and, more generally, in building the information society. They are embracing a new digital era which requires them to alter their practices and move towards electronic administrative procedures.

It is difficult today to envisage urban planning or development projects or the construction of public amenities without involving the public and the various local stakeholders. Information, dialogue and a local approach are now essential aspects of
action by public authorities and proper consultation before projects are launched is recognised as vital to their success.

There have been substantial changes in consultation processes in recent years, with legislation and regulations being adopted in many Council of Europe member States. However, the complexity of urban areas and the difficulties involved in obtaining the views of the public mean that there is no single type of consultation that fits for every issue.

Cyberdemocracy, also known as e-Democracy, offers a vital tool for implementing proper consultation. The more general use of the Internet and its functions, the democratisation of access and the spread of new information technologies are now opening up new prospects for fostering public debate and involving the public very closely in the decision-making process.

Nevertheless, e-Democracy is sometimes accused of merely simulating participation, not being taken up by the public or being used to sideline representative associations. In fact, it brings about changes in attitudes and behaviour on the part of the authorities, the public, associations and business. It involves a learning process for all concerned. The public and associations learn to define their respective roles in universally accessible consultation processes. Elected representatives themselves try out new tools for consolidating their representativeness.

Cyberdemocracy has great potential because larger numbers of citizens have easier access to more extensive and more transparent information. This enables them to keep abreast of the progress of projects and keep track of their implementation. This transparency of public authorities’ actions can help restore trust in politicians and bring about greater understanding of their motivations and choices.

Introduction

The Internet is now well established as an everyday medium, alongside newspapers, television and radio. Just as many business transactions and purchases are currently made online, it seems natural to use the opportunities of the Internet to involve citizens in the development of their local communities.

In the field of urban planning and development, cyberdemocracy, or e-Democracy, means information and participation arrangements that enable every interested citizen or institution to find out about objectives, requirements and current or planned projects anywhere in the urban area or its immediate district, making it possible for them to assess the spatial and other effects of current and planned projects in their immediate area or citywide. E-democracy also enables them to express their views.

To clarify the concept it is necessary to distinguish cyberdemocracy from e-Government in the building/planning field. When, for example, a developer submits a building project to the city planning authority and the authority seeks the views of other departments, we are dealing with standard procedures in which the “issuer” and the “receiver” are clearly identified. Here we are talking about e-Government as applied to the planning field.
Cyberdemocracy in urban planning matters should mean something more radical than that. It has to do with overall development of the town or city in a very wide range of fields, with making clear the spatial implications of such development, and with initiating a continuous opinion-forming process about the future shape of the town or city. E-democracy in this sense is concerned with everyone and all institutions, their information needs on account of an extremely wide range of interests, their views on plans and projects and their desire to make their wishes clear and to influence decisions.

Local authorities in particular have a key role regarding democratic culture: the decisions taken at their level often affect the environment people live in directly and visibly. Municipalities are particularly well-placed to make maximum use of cyberdemocracy procedures.

In technical terms, cyberdemocracy is based on information provided through the Internet which, in the urban planning field, often employs geographical information systems because of the relevant spatial factors. Other types of information concerning, for instance, political structures and legal requirements also play a part. This provides the basis for Internet tools such as web forms, online forums, chat rooms, online surveys and even referendums (see appendix 1 for a summary of cyberdemocracy tools). These tools enable online dialogue processes to take place, thereby involving citizens in opinion-forming and decision-making processes through new communication channels.

There is widespread agreement about the technical potential of cyberdemocracy tools to improve information and communication in participation processes (e.g., OECD 2004):

- online participation processes are easier and cheaper to access than physical meetings and allow for greater flexibility in time, thereby reaching a larger number of people;
- many people do not like to speak in front of larger audiences and prefer to write comments in a forum;
- information can be visualised and animated;
- different levels of aggregation of information can be offered and linked;
- online processes allow for interactivity, permitting more in-depth consultation, and support deliberative debate;
- individual replies and comments can be published and shared;
- online processes allow for greater transparency of dialogue and are easier to monitor and evaluate.

In general terms, greater civic commitment and increased legitimacy of urban planning decisions can be expected in relation to those – primarily younger – groups for which the Internet and other electronic channels are the preferred communication medium. In this respect, the use of cyberdemocracy tools involves adaptation to new communication channels and habits.

In practical terms, it is the various dimensions of towns/cities and urban development which affect citizens and which require citizen participation of one form or another:

- properly organised use of the urban territory and as conflict-free reconciliation as possible of the land-use needs within it;
- the town as a locus for the production of goods and services, whether for super-regional markets or for the local population. This includes public services, which in each case need to be seen in terms both of service supply and job provision;
• the town’s/city’s constant need for renewal, whether on account of ageing infrastructure, ageing buildings or new demands on its capabilities;
• the social requirements of the town/city as a community, its social and economic make-up and its disadvantaged groups (for example: immigrants, jobless persons, families and children);
• requirements of specific parts of the town;
• shifts in local demography because of population ageing, changes in family structure and falling birth rate in most countries in Europe;
• the townscape, whether as historic heritage or from the standpoint of shaping it for optimum amenity;
• sustainability aspects of urban development, whether in terms of environmental protection or people’s health;
• the town’s/city’s constant exchanges with the surrounding district;
• the town/city as contributor to overall European or national output and prosperity (often with a particular focus and with labour specialisation in producing specific goods or services);
• within the network of towns/cities, a particular town, geographically, may be an important logistical node.

In these and other contexts a wide range of factors come into the planning picture:

• the institutional framework for urban planning and development;
• information requirements and supply and the recipients of information;
• making information available in a way that optimally ensures the desired dialogue;
• organisation of dialogue between interested citizens and institutions on the one hand and officialdom (specialist departments or political decision-making bodies) on the other.

The institutional framework for deliberative consultation

To ensure that citizens and institutions are fully informed, all levels at which urban development projects are discussed, whether at the preparatory or implementation stage, have to be taken into account:

• the urban development level is the policy one which overarches the specialist sectors and which, by means of guidelines and statements of key objectives, sets priorities in the light of demographic, social and economic factors and trends whilst taking into account the town’s overall capabilities and responsibilities;
• at the level of urban departmental planning, policy is translated into specific objectives for which specialist norms and planning methods/procedures are applied – in the traffic/transport field, for example. This includes application of national and regional standards and legislation;
• the urban-planning level draws up projects for implementation in the town/city. Its basic function is to organise the town/city into zones for different purposes (land-use planning) and deal with detailed planning according to the planning and building regulations, whether in relation to individual building projects or a part of the town/city;
• the statistics, survey and urban research level provides the all-important informative, user-friendly and wide-ranging electronic basis for cyberdemocracy;
• finally – and particularly in this area – it is necessary from the outset to involve civil society, interested and knowledgeable citizens, associations and institutions, as an increasingly relevant level for discussion of the town’s/city’s future. Good government on the one hand, and good governance on the other, entail a shift from the top-down planning approach to a democratic, participatory conception of planning. This ranges from formal hearing and participation rights to discussion of urban development projects in citizen forums. It encompasses both expression of needs and expectations at the preliminary stage and participation in the implementation phase.

It goes without saying that electronic information and communication procedures can provide effective support to this modern conception of planning as a two-way process, with the municipality as local authority on the one hand and the municipality as active civil society on the other.

It is important to clarify the institutional basis because it should be clear who provides information and interprets it and who picks up information and interprets it in the light of personal requirements. Basically, each level can be involved in either capacity. What is crucial is that everyone involved should be prepared or encouraged to take on this dual role.

**High-quality information for successful consultation**

Democracy as a collaborative system is meaningless and unworkable without the preliminary provision of information. A client-oriented approach and quality information are keys to acceptance, and thus success, of attempts to build dialogue. This basic consideration points to the need for cyberdemocracy to be treated from the outset as a broad information and dialogue platform for the community at large rather than just a tool to be focused on individual projects.

The urban community as the primary social structure is made up of a variety of interests and requirements and an extensive range of possible information recipients amongst the population. The following are only a few possible examples of interest groups:

• the whole population;
• the population of a particular area (in a regeneration context, for instance);
• groups with special needs, such as children and young people, senior citizens and people with disabilities;
• providers and users of public facilities;
• local residents who actively concern themselves with local culture and local amenity;
• the business community – particularly businesses that meet local needs – when it aligns its investment decisions with those of the town/city;
• directly affected professions such as architects or town planners.

The objective of transparency means that there are a number of requirements regarding how information is processed:

• “Urban development project” is not understood here as concerning only new buildings or new infrastructure of some size or the architectural or physical renewal of part of
the town/city. Smaller or less extensive changes to the town’s use structure or the way
the town functions are included because, in aggregate or in combination with social
and economic trends, they may have deeper effects than spectacular individual
projects. A further point is that, given population trends, large scale projects such as
new residential estates are the exception in most European towns/cities.
• Information should not be provided piecemeal according to internal, departmental
fields of responsibility but should be seen in terms of the whole urban picture. It
would run counter to the objective of positive citizen response to information
availability and participation opportunities if blueprints, priorities and plans were
presented separately and with no regard to two-way exchange. Electronic technology
makes it possible – as further explained below – to overcome the practical difficulties
that hitherto have stood in the way of a comprehensive, user-oriented approach.
• Translation of information from specialist language into everyday language is an
absolute prerequisite if information is to be interesting and accessible.
• Transparency of the available cyberdemocracy processes is also necessary. Citizens
need to be clear about who is responsible for the processes, how their contributions
are dealt with, whether they will receive replies and the extent to which they can
influence decisions.

Cyberdemocracy also needs to be used to provide various kinds of additional
background information so that a range of options and arenas for action become
apparent:

• information about the current political agenda of the mayor and the municipal
council, giving an indication of future urban development projects. Possible tools
here include newsletters and RSS feeds, as well as council information systems
through which municipal council meeting schedules, agendas, reports and minutes
can be consulted online;
• information about the legal and institutional underpinnings of planning work, the
town’s responsibilities as a level for development of informed local opinion and how
urban planning interlocks with the regional and national levels;
• information about the changes in the basic approach to urban development and
planning – the concepts and methods developed in the 1970s and the paradigm shifts
in the view of what urban development’s purpose is, with sustainability assuming
particular importance;
• information about the findings of urban analysis, forecasting and research.
Departments have comprehensive and detailed knowledge which needs appropriate
packaging to be accessible to the citizen.

A further important point is that urban development addresses not only present plans,
but also older parts of the urban fabric that are now seen as items of architectural
heritage worth preserving. It encompasses matters that look set to become urgent future
issues and objectives which can only be accomplished through different stages and over
the long term. Information that remains static receives little attention and does not
enable people to follow the situation.

Overall, a great volume of online information about the relevant municipality is quickly
built up. It is therefore all the more important for users to be able to navigate and find
information easily on municipal websites. It must be possible to access interactive online
functions from municipalities’ homepages without having to search around.
While itself spatially defined, the town is involved in interchange processes which are not spatially bounded. It is part of a “functional space” which includes daily movement between the town and its region, and inside the town there is similar circulation through areas with characteristics of their own. These interconnections both inside the town and between the town and its region are another important area for cyberdemocracy.

**Making the most of geodata systems and urban modelling tools**

Use of media tools and visual presentation of information are key requirements for successful cyberdemocracy. Thematic maps to various scales – in some cases with accompanying explanations – are the classic tool for urban development. Maps have been produced since the late 19th century (when the first systematic countrywide small-scale surveys were carried out all over Europe) and have been continually refined since that period. The advantages of maps are obvious: they allow spatial features to be taken in at a glance. The disadvantages of the traditional map are its cost and inflexibility. For example, it is impossible to combine different types of content; content that is unimportant for the particular purpose cannot be removed; and it is difficult for maps to show changes across time. Unlike electronic data, maps are not multimedia tools, nor are they location-independent.

We are seeing a revolutionary shift away from conventional town and country surveying and the conventional town or area map on which thematic maps (such as the land-use plan) have hitherto been based. They are being replaced by data systems which retrieve a wide range of information electronically and allow the particular information items required for the particular purpose to be combined in issue-specific maps to the most suitable scale and in the ideal medium (3D, for example).

The technological progress in this field offers a powerful boost to cyberdemocracy, in particular in facilitating transfer of urban-planning and urban-development information between levels or between specialist departments, and with great flexibility for all parties involved. There are three basic types of geodata:

- single-point infrastructure, for example public buildings for delivery of various key municipal services;
- network infrastructure – information about movements and supply;
- urban land according to the various uses of it and intensity of use; stable use or changes of use, (regeneration/renewal).

Advanced municipal geodata systems cover areas such as digital terrain models, road networks and land registers, development plans and land-use plans, nature reserves, habitat conservation areas and green space registers, aerial photographs, localised data on population structure, public amenities, sport and leisure facilities, tourism and catering, plots available for sale and standard land values, etc. For security reasons, details of water, gas and district-heating networks and sewers are not usually published online. In principle, there are demanding requirements in terms of ongoing updating of geodata. Outdated or incorrect data undermine the credibility of the municipalities concerned.
Some municipalities publish online maps on specific topics, for instance giving details of all services and facilities for children and young people in their area, including playgrounds, kindergartens, schools, advice centres, leisure activities and sports clubs, etc.

At present, it is mainly larger towns/cities which provide three-dimensional online images of urban areas, with the trend being to offer views from various perspectives. Three-dimensional images are also available on universally accessible websites such as Google Earth and Microsoft Live Search. A particular advantage of three-dimensional images as regards urban development is the possibility to simulate and visualise drafts of planned building projects, allowing for easy assessment of the optical and aesthetic aspects onscreen.

Further development of three-dimensional urban imaging involves the use of metadata to record the history data of the relevant images, i.e. the time when they were taken and the quality. This also makes it possible to provide graphic illustrations of changes in townscapes over time. In addition, it is likely that the EU Directive INSPIRE which aims to establish an infrastructure for spatial information in the European Community will speed up the provision of geodata at municipal level, although the focus of the Directive is not on citizen participation but on harmonising and standardising geodata infrastructure systems in the various tiers of public administration.

Interactive features within geodata systems permit individual use of the maps, either for private purposes or as a basis for participation in municipal processes. Examples here include measuring areas and routes, inserting textboxes and bookmarks and highlighting sections of maps or particular points on maps, and then sending off the data by e-mail. This makes it easy, for instance, to request additional information from the municipal authorities. Furthermore, the maps individual citizens have made up and added to online can be saved on their own computers for subsequent use.

The spread and further development of online geodata systems at municipal level is reducing the information advantage which municipal authorities and office holders have over the general public. This is a key requirement to enable the public to participate in urban development on an equal footing is therefore satisfied more fully than before.

**Fostering citizen participation**

According to Innes and Booher (2004), most justifications for public participation in planning are covered by five purposes:

- through participation, decision-makers can find out what the public's preferences are and take account of them in their decisions;
- decisions can be improved by incorporating citizens’ local knowledge;
- public participation can advance fairness and justice;
- public participation helps ensure legitimacy for public decisions;
- participation is offered by planners and public officials because the law requires it.

Most laws on regional and urban planning require some kind of consultation, because almost all urban issues and plans concern a variety of different stakeholders with often
conflicting interests. First of all, other administrative units or public entities responsible for aspects such as nature conservation or protection of historical monuments have to be consulted. In addition, NGOs representing civil society often have to be consulted as well. They must be formally invited to formulate their concerns or objections, and the planning offices are obliged to consider these arguments and also discuss them in public meetings. Furthermore, most laws on regional and urban planning provide for the consultation of the public. If decisions are taken without these stages in participation, they may be annulled by courts. Furthermore, there are formal rights of appeal.

The link between participation and sustainable communities was made explicit in the 1998 Aarhus Convention which recognises that:

“...in the field of the environment, improved access to information and public participation in decision-making:

- enhance the quality and the implementation of decisions;
- contribute to public awareness of environmental issues;
- give the public the opportunity to express its concerns;
- and enable public authorities to take due account of such concerns;

...aiming thereby to further the accountability of and transparency in decision-making and to strengthen public support for decisions on the environment...”.

The European Commission is party to the Convention and has launched two directives implementing the Convention in 2003 (Directive 2003/4/EC on public access to environmental information and Directive 2003/35/EC providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment).

Beyond these formally guaranteed consultation rights, there is a broad range of mechanisms for deliberative consultation. As a reference, the Recommendation (2001)19 of the Committee of Ministers of the Council of Europe regarding the participation of citizens in local public life draws the attention of member States and other stakeholders to the need to:

“give citizens more influence over local planning and, in a general manner, over strategic and long-term decisions [...] and ensure that direct participation has a real impact on the decision-making process, that citizens are well informed about the impact of their participation and that they see tangible results. Participation that is purely symbolic or used to simply grant legitimacy to pre-ordained decisions is unlikely to win public support. However, local authorities must be honest with the public about the limitations of the forms of direct participation on offer, and avoid arousing exaggerated expectations about the possibility of accommodating the various interests involved, particularly when decisions are made between conflicting interests or about rationing resources.”

Recommendation (2004)15 of the Committee of Ministers to member states on electronic governance (“e-Governance”) states with regard to e-Democracy that “the use of Information and Communication Technologies (ICT) in the democratic processes should be made available where it is considered that this would be an effective means of:
strengthening the participation, initiative and engagement of citizens in national, regional and local public life;

• improving the transparency of the democratic decision-making process and the accountability of democratic institutions;

• improving the responsiveness of public authorities;

• fostering public debate and scrutiny of the decision-making process.”

In terms of what is called “deliberative consultation”, Recommendation (2001)19 of the Committee of Ministers invites member States and other stakeholders to:

“…make full use, in particular, of […] more deliberative forms of decision-making, i.e. involving the exchange of information and opinions, for example: public meetings of citizens; citizens’ juries and various types of forums, groups, public committees whose function is to advise or make proposals; round tables, opinion polls, user surveys, etc.”

“Introduce or, where necessary, improve the legislation/regulations which enable:

i. petitions/motions, proposals and complaints filed by citizens with the local council or local authorities;

ii. popular initiatives, calling on elected bodies to deal with the matters raised in the initiative in order to provide citizens with a response or initiate the referendum procedure;

iii. consultative or decision-making referendums on matters of local concern, called by local authorities on their own initiative or at the request of the local community;

iv. devices for co-opting citizens to decision-making bodies, including representative bodies;

v. devices for involving citizens in management (user committees, partnership boards, direct management of services by citizens, etc).”

One the one hand, cyberdemocracy tools provide alternative channels for basically the same (offline) mechanisms. On the other, they provide new channels like advanced geodata systems.

Considering the range of forms and devices of involving citizens mentioned in Recommendation (2001)19 regarding the participation of citizens in local life, a somewhat broader and more differentiated classification seems more appropriate. As responsiveness of local government is frequently mentioned as an important trust-building feature, cyberdemocracy should not be restricted to procedures and devices offered and initiated by public authorities and political bodies, but should also include initiatives started by citizens, NGOs or business. Indeed, there are recommendations to local authorities and representatives to encourage and support these kinds of activities as well.

Both offline and online, citizen participation therefore also fundamentally affects the distribution of political power in a democracy. In representative democracies, elected representatives have key decision-making powers. Any calls for increased citizen participation therefore also raise the issue of how much power elected representatives should give up. The challenges to cyberdemocracy and e-Participation in general and in the urban development field in particular are therefore not only technical but also concern issues of political culture and the legal foundations for citizen participation at municipal level.
Trust between the public and elected representatives and officials is a core element of political culture. A key requirement for local politicians and officials is to establish and preserve public trust. This can be achieved if there is total transparency about the rules of participation, for example, how are citizens’ contributions dealt with? How are they taken into account in decisions? Greater public motivation is also achieved if the decision-makers agree beforehand to implement the results of participation processes. However, the extent to which decision-making power can be transferred to participating citizens also depends on the level of professional and scientific expertise required for a particular project. Examples here include the environmental impact of a project or the impact of a new shopping centre on businesses in town/city centres or the surrounding areas.

The traditional forms of participation cannot be replaced entirely by electronic tools, as the latter require Internet access and – in the case of urban development projects with digital maps – powerful transmission networks and computers. In most European countries, however, the latter are not available to fairly large sections of the population ("digital divide"). But electronic tools can supplement and improve existing participation procedures. Examples here include increased transparency through the insertion of comments on digital maps, the publication of statements with requests for comments and keeping track of the processing of inquiries and objections.

E-tools must therefore be combined with traditional participation procedures. Their particular contribution depends on how attractively they are designed, how much key data they contain and how well contributions are analysed, compiled and fed into the decision-making process.

Local cyberdemocracy: case studies

Studies on local cyberdemocracy initiatives show that there are interesting good practice examples for many forms of participation. However, it can be seen that the Internet has so far primarily been used to provide information and receive questions or comments from the public. It is only rarely that it is used for dialogue or for binding votes or referendums.

The Local e-Democracy National Project in the UK offers probably the largest and best documented set of experiments with cyberdemocracy at the local level in Europe. In their survey of local government websites of all 408 local authorities in England and Wales, Pratchett et al (2005) found that 32% of all council websites offer some kind of online forum, and that online questionnaires were used by just over a third of authorities (37%). On the other hand, information, for example on the council and access to councillor web pages and e-mail addresses, is provided by almost two-thirds of the local authorities. The authors conclude that the take-up and implementation of different cyberdemocracy tools varies considerably across local government and that local authorities are already using many of the tools of cyberdemocracy but that there is much more that they could be doing.

In Germany, the Initiative e-Participation analysed the websites of all 82 larger towns/cities with regard to citizen participation procedures. In 2005, compared to 2004, there was an increase in the number of cities offering some kind of citizen participation.
While information about the government structure and decision-making procedures is evaluated positively, there are only 13 cities which offer some kind of informal participation on a few selected topics. Regarding formal participation and consultation processes as to land-use planning, 48 out of 82 cities provide information about the offline procedures, but only 17 allow online submission of comments. The report therefore concludes that citizen participation via the Internet is still an exception (Initiative eParticipation 2005).

In a comparative study on local cyberdemocracy initiatives covering Estonia, Hungary, Italy, Spain, Switzerland, the United Kingdom and the United States, Peart and Diaz (2007) found innovative and interesting examples that involved increasing transparency and promoting citizen participation in the governing process. Participation includes online voting (Estonia, Switzerland), e-Consultation – e.g. online forms, chat sessions with mayors, questions and answers by text messages – and discussion forums. An advanced example of deliberative interaction is the e-Petitioner of the city of Bristol (UK). This tool allows for networking of citizens with common concerns and for initiating petitions entirely online. Nevertheless, the authors indicate a generally low level of use of e-Consultation and online forums in the case studies, which means that e-Tools need to be integrated with other government efforts to promote participation and dialogue.

Torres, Pina and Acerete (2006) conducted a survey of 35 cities with more than 500,000 inhabitants in 12 European countries. In 2003 and 2004, the websites of these cities were surveyed, with checks on 133 items. Items relating to cyberdemocracy include information about the mayor and council members, minutes and reports, press releases and facilities for citizen dialogue such as complaint boxes, forums and other types of democratic commitment and participation. While, on average, more than 60% of the cities’ websites contain informational items and even 66% a complaint box, only 26% offer a forum and 37% other kinds of commitment or participation.

One study focused on online consultation in urban planning: In 2006, the German Institute for Urban Studies (Deutsches Institut für Urbanistik) assessed the effects of a change in the German Federal Building Act to allow the use of electronic media in town planning procedures, including participation procedures for other public authorities and the general public. 61 to 68% of the responding municipalities publish their digital maps and documents on the Internet and use it for consulting the public, but only 12% publish comments they receive. The online facilities did not produce strong effects on the number of comments, nor did they save costs in the majority of cases. The most frequently mentioned obstacles and difficulties arising when using the Internet in participation processes concerned download time, hardware facilities of citizens and the readability of plans. 74% of the municipalities expressed a need for more support using the Internet for online consultation (Strauss 2006).

Overall, most of the presented studies use data material from the years 2003 to 2005. It is likely that further progress has been made since then. On the one hand, this is because more members of the public have broadband access. On the other, more cyberdemocracy initiatives are likely to have been launched.

There are only a few cases where different tools have been employed in different stages of a participatory process. This means, from an empirically-based perspective, that the use of electronic tools is still in a piecemeal stage of deployment and far from an integrated, systematic approach.
In the view of many observers, including the OECD, there is a need for further systematic investigation of cyberdemocracy tools in different applications. Evaluation efforts with scientific support should be stepped up. In order to make progress here, it would be useful to select one or two policy fields and launch action programmes in which the various tools could be employed at the different stages in the political cycle. If several local authorities conducted action programmes involving the same topics and objectives, it would be possible to analyse and compare the contribution of e-Tools more systematically.

The way forward

The experience to date suggests a series of factors that contribute to the success of cyberdemocracy:

- Clear agreements between the relevant politicians, officials and computer experts. The division of responsibilities and the objectives should be clearly defined, for example local authorities’ Internet forums must make clear who moderates them and according to which rules. It also should be agreed who compiles contributions by whom, for whom and under which conditions.
- The relevant politicians, officials and computer experts should be properly trained to use the instrument successfully. This applies not only to ICT skills but also to skills in marketing, project management and the structuring and effective aggregation of large quantities of data.
- For many years to come, it will remain the case that not all citizens have access to the Internet. Cyberdemocracy projects can therefore only be offered in addition to existing types of citizen participation. In all participation procedures, it must be ensured that no citizens are disadvantaged just because they do not have Internet access. The relevant legal requirements must be complied with here.
- The simultaneous use of cyberdemocracy tools and traditional methods of citizen participation involves additional costs which also have to be covered. This applies firstly to technology, staff and staff training. However, it also includes public Internet access points available to all citizens, with assistance also being provided for users. The funding should initially come from the local authorities themselves. In the case of more complex applications, however, contributions will also be necessary from higher-tier political authorities or from private sponsors.
- E-participation tools need to fit into existing technical systems. This applies particularly to local authorities’ internal document management systems. However, it also applies to the citizens who participate and this means primarily having broadband Internet access for the purpose of downloading maps and plans. In this respect, it is particularly important that not only urban areas, but also rural areas, have access to broadband infrastructures.
- The relevant legal requirements must also be complied with in the case of e-Participation. If legislation requires the identification of the participating citizens, or proof of the authenticity of the messages, provision must be made for this when e-Tools are used, for example in the form of electronic signatures.

If the promise of improved citizen participation through e-Tools is to be realised, proper account must be taken of the legal, financial, cultural and technical aspects. However, even though e-Tools are still far from being used to their full potential, the positive examples seen in various European countries show that success is possible. It is still
necessary to define more clearly the requirements for success and to promote joint learning processes between local authorities and between them and other political and administrative tiers.

8. Conclusion

Using electronic tools to reinforce deliberative consultation on urban development offers citizens an opportunity to be involved in shaping policies and making decisions on issues which impact on their daily life. It provides public authorities with a powerful tool to strengthen trust and dialogue between elected representatives and citizens.

Comprehensive electronic consultation processes go beyond consultation on individual projects to address a localities’ entire urban development strategy. Such approaches require strong political will from elected assemblies and transparent, modern practices from local administrations.

Cyberdemocracy calls for a new mindset where citizens are seen as being at the heart of decision-making processes and where elected representatives are fully accountable to their constituents. Innovative multi-channel tools, urban modelling and 3D software provide local authorities with unprecedented opportunities to offer comprehensive, high-quality up-to-date and user-friendly information and data.

Electronic deliberative consultation is relevant to all towns and cities regardless of size. However, it must not be forgotten that many people have only limited access to the Internet or may not have the necessary skills or confidence to use computers. It is therefore vital that local authorities use non electronic means of consultation in parallel with on-line tools and take measures to improve access to the Internet for disadvantaged groups and in isolated or peripheral areas.

People are increasingly seeking to live in cities where environmental concerns are central to decision-making and where appropriate public services encourage responsible mobility and consumption patterns. Developing deliberative consultation offers a powerful mechanism to develop sustainable towns and cities where people are committed to building a sustainable future for their locality.
References


Sæbø, Øystein: Four models of electronic democracy, CAHDE(2007) 6


Resolutions and recommendations of the Congress of Local and Regional Authorities

Resolution 91 (2000) on responsible citizenship and participation in public life
Opinion 15 (2001) on the draft Recommendation of the Committee of Ministers to the member States of the Council of Europe on “participation of citizens in local public life”
Resolution 139 (2002) on relations between the public, the local assembly and the executive in local democracy (the institutional framework of local democracy
Resolution 207 (2006) on young people and new information and communication technologies: a new opportunity for local democracy
Resolution 239 (2007) A European Strategy for Innovation and Good Governance at local level
Recommendation 215 (2007) Climate Change. Approaches at Local and Regional Level

Resolutions and Recommendations by the Committee of Ministers

Recommendation (2001) 19 of the Committee of Ministers to member states on the participation of citizens in local public life
Recommendation (2004) 15 of the Committee of Ministers to member states on Electronic Governance (“e-Governance”)
Recommendation (2007) 11 of the Committee of Ministers to member states on promoting freedom of expression and information in the new information and communication environment
## Appendix 1 Tools for cyberdemocracy

### Main types of tool

<table>
<thead>
<tr>
<th>ICT application</th>
<th>Activity and purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Participation chat rooms</td>
<td>Web applications where a chat session takes place in real time especially launched for eParticipation purposes</td>
</tr>
<tr>
<td>e-Participation discussion forum/board</td>
<td>Web applications for online discussion where users with common interests can exchange open messages on specific eParticipation issues, pick a topic, see a “thread” of messages, reply and post their own message</td>
</tr>
<tr>
<td>Decision-making games</td>
<td>These typically allow users to view and interact with animations that describe, illustrate or simulate relevant aspects of an issue; here with the specific scope of policy decision-making</td>
</tr>
<tr>
<td>Virtual communities</td>
<td>Web applications in which users with a shared interest can meet in virtual space to communicate and build relationships; the shared interest being within eParticipation contexts</td>
</tr>
<tr>
<td>e-Panels</td>
<td>Web applications where a ‘recruited’ set, as opposed to a self-selected set, of participants give their views on a variety of issues at specific intervals over a period of time</td>
</tr>
<tr>
<td>e-Petitioning</td>
<td>Web applications that host online petitions and allow citizens to sign in for a petition by adding their name and address online</td>
</tr>
<tr>
<td>e-Deliberative polling</td>
<td>Web applications which combine deliberation in small group discussions with random sampling to facilitate public engagement on specific issues</td>
</tr>
<tr>
<td>e-Consultation</td>
<td>Web applications designed for consultations which allow a stakeholder to provide information on an issue and others to answer specific questions and/or submit open comments</td>
</tr>
<tr>
<td>e-Voting</td>
<td>Remote internet enabled voting or voting via mobile phone, providing a secure environment for casting a vote and tallying of the votes</td>
</tr>
<tr>
<td>Suggestion tools for (formal) planning procedures</td>
<td>Web applications supporting participation in formal planning procedures where citizens’ comments are expected to official documents within a restricted period</td>
</tr>
<tr>
<td>Webcasts</td>
<td>Real time recordings of meetings transmitted over the internet</td>
</tr>
</tbody>
</table>

(Source: Sæbø, Øystein: Tools for electronic democracy, and DEMO_net 2007)
### Appendix 1 Tools for cyberdemocracy

**eDemocracy services for Deliberative Democracy**

<table>
<thead>
<tr>
<th>ICT application</th>
<th>Activity and purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion forum, (issue-based) e-Docket</td>
<td>Initiating, drafting and defining political issues, following up decisions</td>
</tr>
<tr>
<td>Invitation to submit suggestions</td>
<td>To inform citizens that they can submit suggestions to municipality</td>
</tr>
<tr>
<td>(e-) Referendum</td>
<td>To inform decision-makers about citizens’ view on a particular issue. Often “for information”</td>
</tr>
<tr>
<td>Homepages</td>
<td>To inform citizens about timely issues and to educate them on possibilities for deliberative democracy.</td>
</tr>
<tr>
<td>On-line transmissions of meetings</td>
<td>To make decision-processes transparent, to follow-up decision-making of representatives</td>
</tr>
<tr>
<td>Citizen panel/“jury”</td>
<td>Getting information from a sample of citizens concerning a specific issue</td>
</tr>
<tr>
<td>On-line questionnaire / Survey</td>
<td>Getting opinions from citizens on particular issue</td>
</tr>
<tr>
<td>e-Voting/Membership ballot</td>
<td>Getting opinions from citizens / members of a community on particular issues</td>
</tr>
<tr>
<td>“Your question”</td>
<td>Citizens can ask questions from politicians</td>
</tr>
<tr>
<td>Public opinion messages</td>
<td>Citizens express their opinions on legislation or local politics, transparency on whether public opinion has been followed on an official form</td>
</tr>
<tr>
<td>Real-time chat, Group-to-group chat</td>
<td>Citizens can contact politicians on-line to discuss about issues</td>
</tr>
<tr>
<td>Closed discussion forum</td>
<td>Party members can affect opinion within a party</td>
</tr>
<tr>
<td>Expert panel</td>
<td>Collecting viewpoints from targeted debates to decision-makers</td>
</tr>
<tr>
<td>Formal consultation report</td>
<td>Choosing appropriate background documentation for a targeted debate</td>
</tr>
<tr>
<td>Feedback about targeted discussions</td>
<td>Informing discussants, which representative has been informed and how the discussion affects the decisions.</td>
</tr>
</tbody>
</table>

(Source: Table 3: e-Democracy services for Deliberative Democracy (Päivärinta & Sæbø, 2006a) in CAHDE(2007) 6 E)
Electronic democracy and deliberative consultation on urban projects

The Congress of Local and Regional Authorities of the Council of Europe

15th PLENARY SESSION
Strasbourg, 27-29 May 2008

Recommendation 249 (2008)¹

1. Democratic requirements and public participation are the focus of current political debate. Public authorities are having to address public disengagement from politics and a crisis of confidence in politicians and political institutions at national, regional and local level. This is reflected in low turnout at elections, a rise in extremism and declining civic commitment.

2. The Congress of Local and Regional Authorities of the Council of Europe believes that this trend can be reversed by renewed governance practices, in particular greater transparency in decision-making processes, overseeing democratic institutions, and reinforced participation and better access to information.

3. The Congress confirms its conviction that the key aspect of electronic democracy or cyberdemocracy is the renewal of the decision-making processes and the application of the principle of participation. This is in line with the European Charter of Local Self-Government which considers that “the right of citizens to participate in the conduct of public affairs is one of the democratic principles shared by all member States of the Council of Europe”. The Aarhus Convention also affirms this principle and the right to information, particularly with regard to environmental issues.

4. The digital revolution confronts our societies with far-reaching and unprecedented changes. Information and communication technologies (ICT) offer new ways to reach the public, to mobilise different groups and to make contact with particular sections of the population, for example young people. They enable citizens to have their voices heard individually and collectively; they are an asset for rebuilding political and democratic processes.

5. Local authorities have a vital part to play in extending the use of ICT and need to consider all its possibilities, in particular with a view to improving consultation and exchanges with the public about projects to transform their local communities and the environments they live in. The authorities should seek innovative solutions to foster new and experimental public debate procedures ahead of decisions.

6. The Congress believes that territorial development and planning decisions should involve all civil society and that deliberative consultation enables public authorities to perform their duties and take decisions advisedly. To this end, there must be a transparent dialogue process in which people’s views are heard before undertaking major projects.
7. In this respect, e-Democracy is particularly useful, whether in terms of opinions, public inquiries, less formal types of consultation or merely the provision of information. These interactive tools can be used in all phases of drawing up public policies and urban projects.

8. Cyberdemocracy calls for new ways of conceiving of, and thinking about, public services. By providing full and comprehensible information about their public policies and their projects, local authorities can, on the one hand, modernise their practices and their administrative bodies whilst, on the other hand, restoring confidence and dialogue between the public, elected representatives and administrative bodies.

9. The use of electronic communication tools can help in explaining all dimensions of urban planning. It requires complex projects and ideas to be formulated more clearly, makes information more accessible and more transparent and introduces the public to areas which are often the preserve of specialists.

10. The Congress believes that broad public participation can meet the needs both of the smallest communities and of metropolitan areas. While e-Participation offers new opportunities for dialogue, it must nevertheless be part of a more conventional process of participation so as to satisfy all expectations and limit exclusion. In this respect, the authorities should develop Internet access, particularly for disadvantaged and geographically isolated groups.

11. Local authorities also need to implement online participatory democracy methods which do not undermine representative democracy, do not result in particular groups being overrepresented and which enable citizens to take part in public debate on an individual basis. The quality of the relevant expertise should remain a benchmark feature of the participation process.

12. Comparison of the various experiences of e-Democracy throughout Europe highlights the existence of political will and the acceptance of a more transparent and democratic management among politicians themselves, important factors for the success of consultation processes on urban projects.

13. In the light of the above, the Congress calls on the Committee of Ministers of the Council of Europe to:

   a. take full account of local and regional authorities’ extensive experience in electronic democracy and direct its attention to promoting the widespread implementation of e-Democracy tools, particularly at the 4th Forum for the Future of Democracy (Madrid, October 2008);
   
   b. invite the Ad hoc Committee on e-Democracy (CAHDE) to elaborate guidelines on electronic deliberative consultation which asserts the spirit of openness of the participation process, the principle of transparency of decision-making and administrative processes and the need to take into account complete decision-making cycles. These principles offer a pragmatic completion of the draft additional protocol to the European Charter of Self-Government on citizen participation.

14. The Congress recommends that the Committee of Ministers of the Council of Europe call on member states to:
a. reinforce the legislative and regulatory framework for consultation and foster the renewal of decision-making processes, making it compulsory for all tiers of governance to involve the public in projects that affect them, in particular in terms of sustainable urban planning, spatial development and local infrastructure facilities;
b. conduct at national level prior consultation processes, concerning national infrastructure and spatial planning projects, which foster new, electronic public debate procedures;
c. lead by example, create and regulate the conditions for the widespread use of the Internet and ICT in public participation and:
   i. implement a strategy for further development and improvement of e-Democracy initiatives and tools so that they complement and inter-operate with non-electronic forms of participation and democratic commitment;
   ii. develop ICT infrastructure throughout their territory, in accordance with the principles of equality and continuity, with a view to increasing the attractiveness of the various regions and reducing inequality in Internet access;
   iii. ensure that transparent, high-quality, accessible, intelligible and accurate online information is provided so that the public are encouraged to take an interest in local public action and play a constructive part in shaping the future of their environments;
   iv. consider using mediators who can identify, aggregate and explain relevant information;
   v. ensure that electronic signatures to validate contributions are reliable;
   vi. foster knowledge of ICT and encourage the use of ICT by all citizens and train officials from central and other tiers of government in information management and the potential of ICT.
d. support local authorities in their e-Participation trials and innovations and, in this respect:
   i. provide the necessary information and data so that local and regional authorities can take decisions on sustainable urban planning having full knowledge of the facts;
   ii. support fundamental and applied research on technology which facilitates the understanding and illustration of spatial planning issues (mapping, geodata, 3D urban modelling software etc.).

15. The Congress also recommends that the Committee of Ministers of the Council of Europe invite the European Union to:

a. conduct the information society project in partnership with all tiers of governance and foster access by local and regional authorities to the new framework programmes;
b. include the objectives of the Digital Local Agenda (EISCO 2007) in the European Commission i2010 strategic framework, thereby ensuring that regions and municipalities play a central role in promoting the information society and e-Inclusion throughout Europe.

NOTES
1 Debated and approved by the Chamber of Local Authorities on 27 May 2008 and adopted by the Congress on 29 May 2008, 3rd sitting (see document CPL(15)3REC, draft recommendation presented by H. Himmelsbach (Germany, L, NR), rapporteur).
Electronic democracy and deliberative consultation on urban projects

The Congress of Local and Regional Authorities of the Council of Europe

15th PLENARY SESSION
Strasbourg, 27-29 May 2008

Resolution 267 (2008)

1. Electronic democracy, also known as cyberdemocracy, offers a powerful tool to counteract citizen disengagement and disillusion and to develop the dialogue and trust essential for good governance. Electronic deliberative consultation for sustainable urban spatial development offers a way to revitalise local democracy and citizenship by facilitating people's participation in shaping polices and decisions which impact on their lives and environment.

2. Electronic democracy for urban development requires strong political will and greater transparency and accountability from elected representatives and public administrators. It calls for a new mindset where citizens are at the heart of decision-making processes and where an ongoing dialogue between local authorities and citizens is established to ensure the sustainable development of communities.

3. The Congress of Local and Regional Authorities of the Council of Europe confirms the principle of participation as recommended in the European Charter of Local Self-Government which considers that “the right of citizens to participate in the conduct of public affairs is one of the democratic principles shared by all member States of the Council of Europe”. The Aarhus Convention also affirms this principle and the right to information, particularly with regard to environmental issues.

4. With this in mind, the Congress believes that early and continued consultation has a beneficial impact on social cohesion and the environment. It observes the growing demand from citizens for information and dialogue concerning the future of their towns and cities and their environment. It suggests that electronic consultation tools offer local authorities an opportunity to work more closely and successfully with citizens.

5. Electronic democracy, or cyberdemocracy, also provides an opportunity to improve working methods and modernise public services and administrations and to offer interactive services in a multi-channel environment. These developments, which favour virtual processes, enable on-line administrative procedures to be simplified and can reinforce the links between public authorities and citizens.

6. Public authorities have a dual role to play; as decision-makers and service providers on the one hand, and as an active player in society which informs, encourages and initiates change on the other. Electronic participation helps mobilise civil society in its entirety as well as reinforcing links between the different levels of governance.
7. Electronic media and visual display tools facilitate the presentation of complex issues in a high quality, contextualised manner thereby improving transparency, comprehension and citizen participation in processes which used to be reserved for specialists.

8. Innovative electronic tools enable public authorities to go beyond consultation on urban projects and create a new culture of citizenship which reinforces people's commitment to their locality and encourages them to develop informed viewpoints. Young people are often more inclined to use such tools which can offer a response to the dissatisfaction and frustration with traditional political approaches felt by some young people.

9. The Congress is aware of territorial inequalities and limited Internet access for some sections of the population and some regions. Local authorities should develop social and territorial cohesion strategies to ensure that the entire population can actively participate in public life through access to the infrastructures and communication technologies used for deliberative consultations.

10. The Congress welcomes the work of the European cities networks which foster exchange of experience between European towns and cities on electronic democracy. It supports the aims of the Digital Local Agenda (EISCO 2007) which aims to promote an equitable information society for digital inclusion and innovative participation methods.

11. The Congress is delighted that the 4th Council of Europe Forum for the Future of Democracy (Madrid, October 2008) will be devoted to electronic democracy and it welcomes this opportunity to highlight the innovative experiences of local and regional authorities.

12. In the light of the above the Congress calls upon local authorities in Council of Europe member to:

   a. use information and communication technologies (ICT) to improve public participation in local life and enable greater dialogue on the future of their towns and cities and their environment;
   b. use traditional forms of participation in parallel with on-line tools and ensure their compatibility thereby ensuring that everyone has the opportunity to participate and that both individual and collective opinions can be heard;
   c. present urban developments within a mid-term and long-term spatial vision, in all towns and cities regardless of size, and fix the appropriate perimeter for the consultation process which takes into account the project's impact;
   d. undertake electronic deliberative consultation on urban development which goes beyond the formal consultation required by existing legislation and:

      i. make use of all electronic tools to provide comprehensible, transparent and rapid information on the issues under review whilst making sure that the information is not overwhelming;
      ii. ensure that citizens are fully involved from the agenda setting stage and throughout the entire decision-making processes;
iii. ensure that the consultation process is balanced and does not over-represent particular interest groups. Furthermore, extra support could be provided to disadvantaged groups to help them express their views by making available information mediators who can identify, aggregate and explain relevant information;

iv. make certain that the findings of the consultation process are taken into account at the decision-making stage according to pre-established transparent rules.

e. encourage participatory initiatives started by other urban development stakeholders and take particular account of citizen-to-citizen initiatives;

f. reduce inequalities of access to the Internet through the extension of broadband infrastructure wherever possible and the provision of free public Internet and multimedia access points;

g. train public administration staff and elected representatives on the management of information and digital knowledge and, if required, offer training to citizens in use of the new tools;

h. work with stakeholders to raise awareness of the importance of citizen participation and electronic democracy in urban development and strengthen citizenship education in schools and for adults.

13. The Congress asks its Committee on Sustainable Development to continue its close co-operation with the Ad hoc Committee on e-Democracy (CAHDE) and to prepare, with the statutory Congress committees, its contribution on electronic democracy and the role local and regional authorities in the perspective of the Forum for the Future of Democracy (Madrid, October 2008).

NOTES
1 Debated and approved by the Chamber of Local Authorities on 27 May 2008 and adopted by the Congress on 29 May 2008, 3rd sitting (see document CPL(15)3RES, draft resolution presented by H. Himmelsbach (Germany, L, NR), rapporteur).
2 Aarhus Convention (1998) on “Access to information, public participation in decision-making and access to justice in environmental matters”
Regione Liguria broadband deployment: the beat goes on!

Region Liguria, Italy

Preamble

Recognizing the potential of ubiquitous Broadband service in growth of Regione Liguria and enhancement in quality of life through societal applications including tele-education, tele-medicine, e-Governance, entertainment as well as employment generation by way of high speed access to information and web-based communication, Regione Liguria have finalized a policy to accelerate the growth of Broadband services. Demand for Broadband is primarily conditioned and driven by Internet and PC penetration. It is recognized that the current level of Internet and Broadband access in Liguria is a bit low as compared to its European neighbours, such as France. Government envision an accelerated growth in Internet penetration and PC as the success of Broadband would largely be dependent on their spread. It has been decided that following shall be the framework of the policy. This article will discuss the status of broadband deployment in Liguria and take up of various public interventions for driving the spread of broadband availability and the extent of Regione Liguria broadband project first results.
The Framework

The Broadband Policy Framework visualises creation of infrastructure through various access technologies which can contribute to growth and can mutually coexist. Spread of infrastructure is a must for healthy competition and therefore it would be the endeavour of the Government that the telecommunication infrastructure growth in the country is not compromised in any manner. Wireless broadband offerings are on the rise with new, innovative applications being introduced on almost a daily basis. Besides the growth and popularity of YouTube and other internet video sites has been nothing short of spectacular. Increasingly, others are looking at broadband as an effective video delivery system. Today, video is available not just from traditional media sources, but increasingly from Internet, telephony and wireless providers. In Regione Liguria the debate key issues have been affecting the competitive landscape for delivery of broadband video, the extent to which video drives broadband penetration and deployment, and what the future policies will have to bring.

<table>
<thead>
<tr>
<th>Requested Services</th>
<th>% tot. requests</th>
<th>Number of requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephony over IP</td>
<td>82%</td>
<td>1.327.168</td>
</tr>
<tr>
<td>IP TV and video/audio services</td>
<td>77%</td>
<td>1.246.243</td>
</tr>
<tr>
<td>E-procurement</td>
<td>40%</td>
<td>647.399</td>
</tr>
<tr>
<td>E-learning</td>
<td>50%</td>
<td>809.249</td>
</tr>
<tr>
<td>Regional Registry Office</td>
<td>15%</td>
<td>242.755</td>
</tr>
<tr>
<td>Others</td>
<td>3%</td>
<td>48.555</td>
</tr>
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Regione Liguria’s broadband project

Regione Liguria believes that rapid rollout and adoption of broadband across its territory is important to both its social and economic objectives. According to the national regulation and policy, Regione Liguria Broadband Strategy has three main strategic objectives:

- Broadband coverage for the citizens and enterprises.
- Broadband public access points for municipalities.
- Broadband access for the public sector.

In 2006 Regione Liguria developed the first phase of its project finalised to close the digital gap. It carried out some broadband experimentations in Apricale, Cinqueterre National Park, Comunità Montana Alta Val Bormida and Comunità Montana Alta Val Trebbia. The Local Government’s broadband strategy includes the following elements in policy formulation:
• Planning the intervention in strict cooperation with all of the institutional levels.
• Promoting the signature of framework agreements with Telephony operators and telecommunications companies.
• Developing a platform to provide interactive services.
• Strengthen the backbone of broadband infrastructure and network throughout the territory.
• Appoint the Ligurian provincial administrations to provide with broadband infrastructure long term digital divide areas (rural and remote areas).

Moreover the second phase of this project aims to increase competitiveness in Regione Liguria providing consumers, enterprises and institutions with more broadband connections to schools, libraries, buildings and institutions. For this purpose, and thanks to the experimentation carried out before, Regione Liguria is constantly: identifying the activities, projects, events, interdependencies and resources required to construct a robust strategic programme for the delivery of broadband services towards 2008 and beyond; measuring on a continuous basis the progress of relevant projects and events towards the realisation of Regione Liguria’s broadband project; providing information to stakeholders regarding the progress of the local government’s strategy and identify potential opportunities or bottlenecks that could help or hinder the deployment and use of broadband services; reviewing continuously the appropriateness and feasibility of the Regione Liguria’s strategy as a whole.

In 2007 Regione Liguria and the ministry of communications and information technology department of telecommunications signed an agreement on the realization of a broadband network that provides 10 m euros to close the digital divide in 99 municipalities of Liguria. this agreement is going to develop a model that can be financially met and that permits to encourage ‘early adopters’ and ‘market makers’ to upgrade to broadband. the focus is on eliminating the remaining barriers to the adoption, adaptation and absorption of broadband-enabled technology, content, applications and services by consumers, enterprises and the public sector.

**Conclusion**

Regione Liguria has been a powerful catalyst in stimulating the growth of the broadband market and ensuring this takes place in the less populated rural and remote areas of the territory to close the digital divide between urban and rural areas. Regione Liguria’s broadband project (RBP), which is a joint National Government and Regional Policy initiative, was established to aggregate public sector demand for broadband via regional and provincial aggregation bodies. Demand aggregation offers a more attractive market for infrastructure providers and facilitates better value deals, benefiting the private as well as the public sector through increased infrastructure build. At the beginning of 2008, the RBP had undergone the transition from its centrally guided start-up phase to local led operations, with responsibility for the day-to-day operations of the local public bodies devolved to their respective institutional tasks, in order to improve cooperation and avoid superposition of interventions. The delivery of quality public services continues to be the biggest driver for developing broadband provision in Liguria at all institutional levels. Further details of Regione Liguria broadband project are available on the website: www.bandalarga.regione.liguria.it
New services in e-Government for spatial information: a comparative Italian-Spanish analysis in the framework of INSPIRE Directive

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Abstract

This paper deals with spatial data as part of environmental information. It compares the main spatial data provided in Italy and Spain and it explains the role that INSPIRE Directive is playing in these countries. The most important difficulties are related to the lack of harmonization regarding the availability, quality, organization, accessibility and sharing of spatial information within each country.

Introduction

The Sixth Environmental Action Programme identifies better information as one of the keys to improve Environmental policy in the decade 2002-2012. Geographic information plays a special role here, because of its potential to present information in a lively and understandable way to citizens and stakeholders. The availability of environmental information will be surely improved through the Directive 2007/2/CE, otherwise known as Infrastructure for Spatial Information in the European Community (INSPIRE). Its implementation will represent an important support to some of the key approaches established in the Sixth Environmental Action Programme: to ensure the implementation of existing environmental legislation; to integrate environmental concerns into all relevant policy areas; to ensure better and more accessible information on the environment for citizens; to develop a more environmentally conscious attitude towards land use [1].

The Italian situation

Under Italian law, the protection of the right of access to spatial data and, therefore, to environmental information is part of a broader process of digitalization of the Public Administration (PA) that has been carried out through different sector rules, which have been gathered together in the so called Code of Digital Administration (CAD), Legislative Decree 82/2005. The CAD represents an attempt to take advantage in a rational way of the Information and Communication Technologies (ICT) to define new procedures and to reorganize administrative activity. Section III of Chapter V regulates the usage of the data, and it includes important innovations: 1) it defines spatial data as “all kind of information geographically located”; 2) it establishes the Committee for spatial data, with the task of determining the technical rules for creating the spatial data bases and to ensure the usability and the exchange of data between the central and the local PA; 3) it sets up the National Repository of spatial data, directed towards providing the public access to data
of general interest that are available in the PA at the national level; 4) it includes amongst
the spatial data of national interest the cadastral data base, managed by the Agenzia del
Territorio [2].

In Italy, article 59 CAD integrated by the rules contained in Legislative Decree 195/2005
giving effect to Directive 2003/4/CE establish the general regulation on environmental
information and they give full execution to the principle of the right to access to
environmental data held by the public authorities or for them, without having to specify
an interest. Although when all these issues are regulated in a single law, a number of
solutions regarding the availability of the environmental data exists in the Italian
administrative system; e.g. art. 6 of Legislative Decree 195/2005 allows the
Administration to ask for recovery of expenses in certain cases. It is, for example, the
case of cadastral information, that is not granted for free.

The Spanish situation

Under Spanish law, the main rules regarding the digitalization of the PA are two: the first
one is the Royal Decree 263/1996, on the ICTs by the state's general administration,
considering itself a development of art. 45 of the Act 30/1992, on Legal Regime of Public
Administration and Common Administrative Procedure. The second one is the Act
11/2007, on Electronic Access to the Public Services by the Citizens. Both of them try to
promote the use of ICTs by the PA, but they do not refer specifically to environmental or
spatial data. This kind of data are produced, managed and stored by different
organizations: mainly by the Spanish Ministry of Environment, but also by the
governments of the different Autonomous Communities, most of which have its own
portal of environmental and spatial information, as well as by some municipalities.
Anyway, and with regard to spatial data, there are two institutions that deal with them
and cover almost all of the Spanish territory: the Cadastre and the Land Registry. In
Spain, the access to environmental information is regulated by the Act 27/2006, on
access to information, public participation and access to justice on environmental
defines the environmental information in a very broad sense; 2) establishes the right
of access to environmental information held by the public authorities or for them,
without having to state a determined interest; it compels the PA to promote the use of
ICT tools to facilitate access to information; 3) includes the duty of the PA to adopt the
necessary measures to ensure that the environmental information will be gradually
accessible in databases through public telecommunication networks, considering that
the duties regarding the dissemination of environmental information through ICT tools
can be fulfilled by the creation of links to electronic addresses through which to access
such information. It also establishes that the Administration will state the prices to be
paid to access the environmental information, as well as the cases in which this access
is free [3].

The role of INSPIRE

INSPIRE lays down general rules as well as technical rules to set up a European
dimension for the management of spatial information. The situation on spatial
information in Europe is one of fragmentation, gaps in availability of geographical
information, duplication of information collection and problems of identifying, accessing or using data that is available. As a result of these problems, effective Union policy actions suffer because of lack of monitoring and assessment capabilities that take into account the spatial dimension. INSPIRE should ensure a higher integration level of spatial data than that of the national information systems, so as to create a common information basin amongst Member States and a dynamic and shared tool to develop community policies, especially of environmental planning and spatial protection. This infrastructure shall be based on infrastructures for spatial information established and operated by the Member States. INSPIRE requires also specific implementing rules to be adopted through a committee procedure representing Member States. Italy and Spain are now implementing this Directive.

In Italy and in Spain there are already some good examples of the use of INSPIRE principles; in Italy, at the national level, there is the National Cartography Portal (PCN), managed by the Ministry of Environment and Land Protection, that allows PA and citizens to view and to use the national cartography. Currently it is possible to access on line topographic maps on small scale and medium scale, as well as high resolution ortho-imagery. It is also possible to consult layers of information that have been produced together with the competent bodies; e.g.: maps on hydro-geological risks, protected areas or use of land [4]. A plan exists to systematically extend and update the geo-portal so that it becomes a reliable and stable point of access to distributed and harmonized repositories of geographical information in Italy [5], [6]. At the regional level, Regione Sardegna developed Geographical Information System (GIS) jointly with a Spatial Data Infrastructure (SDI) where both the GIS and the SDI are entirely based on INSPIRE principles [7]. Servizi Integrati catastali e Geografici per il Monitoraggio Amministrativo del Territorio (SigmaTer) Project, is an important inter-regional e-Government project (five regions, five provinces, 12 municipalities, several private partners; 150 re-use bodies) aiming at providing integrated cadastral information to the public and private stakeholders by using a standardized approach within a distributed and service oriented environment [8]. In Spain it is the National Geographic High Council (Consejo Superior Geográfico), that belongs to the Ministry of Public Works (Ministerio de Fomento), the organization who is taking care of the implementation of INSPIRE. Its main task has consisted in the creation of a National SDI (NSDI) as the result of the inclusion, firstly, of all the SDIs created and managed by the official agencies that provide spatial data at national, regional and local level; and secondly, of all kind of thematic and private infrastructures. The purpose of the Spanish NSDI consists in the integration through the Internet of data, metadata, services and geographic information that are produced in Spain. At the same time, it intends to facilitate to all possible users to discover, identify, select and access to those services through the geo-portal of that NSDI, that contains the nodes and geo-portals of SDIs created by geographic data producers at national, regional and local level, as well as all kind of data and geographical information services available in Spain [9].

**Conclusions**

INSPIRE is a framework Directive to be implemented in the coming years to create a policy and legal framework for the establishment and operation of a unitary SDI for Europe, with the purpose of developing Community policy on the environment. Some of the main problems that have been encountered in the way to establish the SDIs are those
regarding the availability, quality, organization, accessibility and sharing of spatial information. Solving these problems requires measures that address exchange, sharing, access and use of interoperable spatial data and spatial data services across the various levels of public authority and across different sectors. Interoperability is a crucial issue; main organizational conditions for its success depend on leadership and legal framework, vision for coordination and cooperation, clear communication strategy, ability to create initiatives of local communities, interaction within policy framework. INSPIRE is based on an approach, compliant with e-Government national plans, to support the availability of spatial information for the formulation, implementation and evaluation of Union policies. Critical issues for development have to do with: the establishment of a coherent European SDI, consistent reference data and thematic data Europe-wide, consistent Europe-wide data quality, direct and free access to discovery level metadata, access to all public sector data and information, uniform components of reference, easy access to and delivery of thematic data, efficient and effective data and information delivery of a range of user needs from citizens and academics to policy-makers and commercial users, harmonized use of data and information across public and private sectors [10]. Thereby the policy and legal framework of INSPIRE can achieve a paradigm shift in the way European spatial data and information are disseminated, shared, traded and managed. While progress has been made on data quality and compatibility, further work is needed particularly to enable the integration of data across European Member States. Also more remains to be done to enable free access to environmental data. As we have seen, these problems also appear at a national level: both in Italy and in Spain there are different organizations providing spatial information at different levels and data cannot be considered homogeneous. The vision for SDI as a resource necessary to facilitate the life of European citizens and enterprises has to be widely accepted. Providing investment for initiatives by European States specific to and compliant with the INSPIRE directive seems timely and appropriate.

References
The challenge of collaborative public services. The Luxembourg model

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Introduction

Four years ago the Luxembourg Government published its masterplan for e-Government activities. This masterplan expresses a strong commitment for transforming a traditional administration into a modern service partner creating public value and increasing economical competitiveness.

The priorities of e-Government actions concentrate on 3 areas:
- The WEB information platform.
- User-centric online services.
- The back-office reorganization.

A project management office has been put into place that controls and monitors all e-Government activities and coordinates horizontal projects.

A coordination committee composed by representatives of the different ministries and administrations is placed under the presidency of the Minister of civil service who holds the overall authority of the e-Government program.

The relatively small size of Luxembourg’s governmental administrations and a close relationship with local authorities and the social security sector allowed us to offer one common service platform to citizens and businesses whatever their concern can be.

Our experiences from the last years have shown that despite the importance of introducing new technologies, change management within the administrations will probably be the most difficult and long running challenge of e-Government initiatives.

The WEB information platform

Since the early years of our Internet program, we tried to promote a corporate WEB image by using a common charter providing a normalization framework for the information architecture, the usability and the graphical layout of all public portals and sites.

Today, www.etat.lu is a main access point to all public horizontal portals as well as to the websites of our different institutions, ministries and administrations.

www.gouvernement.lu concentrates on political issues. It presents the activities of our government as well as all related news.
As we are convinced that Internet can be a way of improving the transparency of the public administration, we have put a high priority on horizontal portals.

A premium horizontal portal is www.entreprises.public.lu. It is a one-stop-shop for businesses which provides any information that is relevant to companies in any situation. It describes the legal framework for creating and operating a business and provides access to the major administrative processes businesses are concerned with.

In a next future, this one-stop-shop will be extended to the lifecycle of citizens. This new part of the public service portal will, in a first step, cover the following themes: work and employment, family, education, housing, citizenship, transportation. The portal will group in one single URL all the information that had been so far published on a multitude of websites driven by every individual administration.

Whereas the one-stop-shop provides practical information about how to manage life or business events in relation with the different administrations, thematic portals will allow the visitor to get more detailed information concerning specific topics like finance and taxation, environment, innovation, etc.

Finally all the Luxembourg legislation can be accessed through www.legilux.lu.

User centric online services

As in the first time we had put the focus on informational websites, Luxembourg was not among the first EU member states to implement interactive online services. This allowed us to learn from the early experiences of our neighbours and fine tune our models in order to achieve our goal of customer-centric eGovernment services.

Indeed, during the last two years we have built a state-of-the-art e-service framework which is based on the principle of customer relationship management as we know it from the private sector. This framework is a mix of software components and procedures that will help us to considerably improve the quality, the transparency and the value of public services over the next couple of years.

Major characteristics of our e-Framework are:

- A highly secured and personalized workspace for every citizen or professional equipped with a registered authentication certificate. This workspace will allow the user to store personal data that are frequently asked to provide in transaction scenarios. This reuse of preconfigured data will considerably reduce the volume of input and the risk of errors and non-intentioned incoherence between transactions.
  The personal workspace will also keep track of former transactions or such transactions that are still in progress. This functionality allows the processing organizations to continually inform about the current status of a transaction, notify exceptions electronically, request additional information where needed and finally deliver paperless results of the transaction.
  Finally, the workspace will allow citizens and businesses to electronically access their personal folders hold by the different administrations.
• Transaction scenarios called “electronic assistants” are user centric; this means that every scenario covers a real life situation independently of the organizational structure of the public administration. Every transaction scenario starts with a profiling step that explores the occurring situation on the basis of regulations and laws to find out which processes are involved and which information they require. If a situation implies an exchange of personal data between administrations, the user can agree on such a paperless exchange by signing an electronic mandate addressed to the issuing party.
• Once these data have been collected by the transaction scenario, the e-Framework will generate electronic documents or XML-files corresponding to the different processes. The electronic signature of the generated objects will end the scenario and trigger the processes.
• A workflow engine controls the interaction between the different administrations involved in a specific transaction.

The Luxembourg model is specific through the fact that the e-Framework can be used by the central government as well as by the local authorities and the social insurance organizations.

As several situations, like moving, request notifications to private organizations like electricity or gas providers, the e-Framework could even be used to support these exchanges as a customer adding-value service.

The backoffice reorganization

Having an efficient citizen relationship management would not generate any long-term value if it would not go along with an optimization of the backoffice processes.

The CAF methodology promoted by the EUPAN helps the different administrations, through a self-assessment, to identify gaps between their current practice and the new service oriented expectations.

A BPM competence centre has been put into place with the objectives of creating and maintaining an inventory of all the processes and information systems used by any administration. This team of experts also provides professional support in process modelling, performance simulation and workflow implementation. The core of the government process environment will be a Documentum based collaboration suite.

All process related information will be fed into a corporate knowledge base that will serve as the unique reference source whatever query will be addressed through whatever channel to a government agent.

Unfortunately success will not only be the consequence of state of the art concepts and infrastructures; it will very strongly depend on the human factor and mainly on the readiness of organizations to change. So, even if we believe that so far a lot of progress was made, the remaining and ongoing challenge to assure streamlined administrative procedures will be basically change management.
E-administration and multi-channel citizen services in the city hall of Madrid

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Summary

Electronic Administration is a key component of the citizen service strategies within Public Administrations. The City Hall of Madrid proposes a multi-channel approach that employs the elements of e-Administration, drawing together the various services and ensuring coherence in the services provided whilst attempting to guarantee the highest levels of accessibility to all people, irrespective of their profile or background. Initiatives such as online prior appointment management, the online urban guide for the disabled and the extension of multi-channel services provide evidence of this approach.

Introduction

Electronic Administration is an emerging model for the provision of public services to citizens that has aroused considerable interest for a number of reasons, which include its capacity to deal with administrative and public service management processes with a great deal of efficiency, thereby reducing marginal costs in the activities of Public Administrations. It is widely known that the costs of each transaction significantly and progressively decrease in accordance with the degree of physical proximity between the recipient and the provider of the service, whereby maximum costs are evidenced in those cases wherein the recipient deals directly with the administration in person, costs are reduced in the case of telephone services (variable depending on the degree to which the response is personalised) and costs evidence the highest reduction when telematic channels, particularly in the case of Internet, are employed. Electronic Administration proves especially suited to those public services that are highly standardised and aimed at extremely large groups of citizens.

Greater efficiency has lead Public Administration, in general, and Local Administrations, in particular, to adopt the mechanisms of Electronic Administration in those processes that entail the highest management costs (i.e. those processes that are aimed at all citizens on an individual basis).

The processes undertaken in Citizen Services fall within this category. By definition, Citizen Services involves interlocution with the general public as a whole, or, at the very least, an extremely high percentage of citizens, whilst attempting to afford a personalised service, providing each citizen with a specific and individual response in relation to a procedure, a process or an issue within a framework that is founded on the principles of the provision of clear information and the fostering of confidence.

However, given the range of its objectives and the size of the population taken in by Citizen Services, Electronic Administration does not constitute the only channel for the provision of public services in this context (indeed, it is not necessarily the most
dominant channel). The existence of significant sectors of the population that have no possibility of accessing Internet or insufficient training in this area, despite the efforts that have been made to improve computer literacy and install free Internet access within the context of public services (efforts to overcome the digital dividing line or gap), the preferences of citizens for one or another communication channel when dealing with the Administration and the nature of certain procedures or processes that require composed dialogue with the civil servants in question or which involve psychological factors relating to confidence that are satisfied via in-person service provision, amongst other elements, mean that Electronic Administration, or more specifically, the provision of citizen services via Internet, is but one channel amongst many, albeit an extremely important channel that complements the range of other channels that enable relations between citizens and Public Administration.

The City Hall of Madrid has drawn up ambitious projects to take full advantage of Electronic Administration within the context of a range of channels and mechanisms employed to provide citizen services. The incorporation of new services and the electronic structuring of the relationship between the various channels for the provision of services constitute the two cornerstones of this strategy.

Citizen services in the city hall of Madrid

In the City Hall of Madrid, the general criteria for the provision of services to citizens are regulated via the Mayoral Decree of the 17th of January 2005 (Gazette of the City Hall of Madrid of January 20th). Article 1 of the aforementioned regulation defines citizen services as “the series of activities, resources and channels that the City Hall of Madrid places at the disposal of citizens in order to enable them to exercise their rights, discharge their duties and access public services”. In accordance with the aforementioned Decree, the activities that constitute citizen services are as follows:

- Information and guidance.
- The registration of requests, documents and communications.
- Managing the suggestions and complaints received from citizens.
- Procedural management.
- The provision of services.

According to the stipulations of the cited regulation, citizen services are provided via the following channels:

- Lineamadrid.
- Specialised Citizen Services Offices.
- Service management and provision units.
- Registry offices.

Lineamadrid integrates the provision of services in person, via the telephone and via telematic means, enabling citizens to approach the City Hall via any of the available channels in accordance with their needs and resources. Services are provided in person via the Citizen Services Offices, the telephone service is facilitated via the 010 system and the telematic service is afforded via the City Hall of Madrid's web site, www.munimadrid.es.
Over the course of 2007, Lineamadrid has dealt with almost 2,400,000 telephone calls (010 service) and more than 2,500,000 in person consultations and procedures via the 21 Citizen Service Offices that are present in each of the capital’s districts. The services provided via Lineamadrid include the provision of information on municipal services and procedures, the issue of certificates of registration and processing of new registrations, removals and modifications in the registry, the issue of Regulated Parking Service permits (including payment of the corresponding fee), payment and issue of copies of receipt of payment of municipal taxes, the registration of documents addressed to the city council and other Public Administrations and the processing of suggestions and complaints relating to municipal public services, amongst a wide range of other services. Thus, we are dealing with a veritable multi-service network that at times also takes on responsibilities charged to other Public Administrations (such as the General State Administration) through agreements and collaboration agreements.

In recent years, the content and services for telematic processing afforded via Lineamadrid and, in particular www.munimadrid.es have increased to a considerable extent.

Thus, over the course of 2007, 1,026,465 telematic procedures were carried out via www.munimadrid.es, representing a year-on-year increase of 52%.

One of the fundamental aspects of the City Hall of Madrid’s citizen service model, in general, and of Lineamadrid in particular, resides in the unicity of the content and services, thereby guaranteeing the coherence of the council’s response to citizens’ information requests or a given procedure. Indeed, a single content is shared by all channels for the provision of services, whereby citizens who request certain information will receive the same response, irrespective of whether they requested the information via telematic means (for example, consulting the corresponding information in the www.munimadrid.es municipal web site), via the 010 telephone service, wherein they will be attended by an operator, or by visiting one of Lineamadrid’s Citizen Service Offices in person, where they will be attended by an agent.

Therefore, it can be seen that a computerised tool, which, given its nature, is focused on telematic environments (an Internet-based content manager), constitutes the backbone of a multi-channel service that is aimed at the population as a whole.

Lineamadrid is marked by constant innovation, as the initiatives outlined below testify:

- **The usability** and **accessibility** of content and services, with particular focus on the role of Electronic Administration in policies for universal inclusion - most especially in relation to individuals with disabilities - by guaranteeing access to municipal services.
- The integration of the various channels of Lineamadrid via the **prior appointment** service, which provides citizens with access to the civil servants within the City Hall, thereby linking telematic appointment arrangement with in-person attention.
- The incorporation of **new mediation services** that enable all members of society to reap benefit from the Electronic Administration services set in motion by the City Hall of Madrid.
- The introduction of telematic channels for the formulation and monitoring of the **suggestions** and **complaints** directed to the City Hall by citizens in relation to the various municipal services and the condition of installations.
Usability and accessibility in LineaMadrid

The definition of citizen services is grounded on a premise: citizen services are “for everyone,” and should be designed and constructed in such a way that everyone can use them. This entails constructing bridges that enable us to overcome the barriers or difficulties encountered when attempting to access public services, which are caused by a number of circumstances, such as the problems that give rise to the aforementioned digital breach (lack of computer literacy, Internet access difficulties arising from economic or other motives), linguistic difficulties (particularly associated with the integration of immigrants from non-Spanish speaking countries) and disability, amongst others.

In recent years, the City Hall has made great efforts to ensure that everyone can access citizen service channels. For example, attention should be drawn to the increased opening hours in the Lineamadrid offices and the new prior appointment service that circumvents queues and waiting times for a number of procedures, which will be referred to below.

Moreover, in a pioneering initiative amongst large Spanish cities, the 010 information and municipal processing telephone service extended its operating hours, whereby this service is now available to citizens on an uninterrupted basis, 24 hours a day, 365 days a year. The content and services provided via the various citizen service channels have also been greatly enhanced. For example, as we have pointed out, over the course of 2007, the citizens of Madrid have carried out more than a million procedures via the municipal web site, www.munimadrid.es.

Moreover, the measures that have been adopted have systematically taken persons with disabilities into consideration. For example, in this area, for the last two years Lineamadrid's citizen services offices include a sign language interpreter, who is available to any citizens that require such assistance during opening hours. In addition, the physical accessibility of the offices is an essential requirement when setting up offices and for their operation, to the extent that the heads of the Lineamadrid network of offices play an active role in the Council for the Promotion of Accessibility and the Elimination of Barriers in the Autonomous Region of Madrid and implement actions in order to incorporate the guidelines of this body in all Lineamadrid buildings.

In terms of the Internet, the commitment to accessibility made by the City Hall of Madrid has been equally stringent, leading to the promotion of the following initiatives.

The development of an Accessible Geographical Information System, which obtained the TAW Prize for the Best Web Accessibility Project in 2006. The general accessibility of the municipal web site, which obtained the TAW Prize for the most accessible public web site at local level, having competed with over 100 other candidates.

The new Urban Guide that can be accessed via Internet (www.munimadrid.es/guiaaccesible), which meets the rigorous guidelines 1.0 of the World Wide Web Consortium’s Web Accessibility Initiative at AA level, along with the requisites outlined in UNE Regulation 139803:2004, boasting the same functions as the general version with the provision of information on streets and points of interest (pharmacies, restaurants, hotels, etc), which are organised according to a strict hierarchy, an urban route planning facility, zone searches (districts, areas) and access to a highly precise aerial photograph.
The Guide is equipped to enable comprehensive surfing without the need for a mouse and automated textual reading, which may be used by individuals with severe visual impairments or those who are completely blind, employing the technical Internet surfing techniques that are normally used by this collective.

Prior appointment

The City Hall of Madrid’s prior appointment system illustrates the use of Electronic Administration mechanisms to interconnect the various channels for the provision of citizen services and to facilitate access to public services to all members of society, irrespective of their circumstances or capabilities.

Over the course of 2007, the average waiting time experienced by citizens in the 21 Lineamadrid Citizen Service Offices was 10 minutes 42 seconds and a total of 315,387 people had to wait more than 20 minutes to receive attention: the immense majority of these cases involved the most complex procedures or those procedures that take the greatest amount of time (modifications in the municipal registry of inhabitants, payment and issue of the Regulated Parking Service permit, urban planning information and a change of address in relation to driving licences and vehicle registration documents).

Despite the fact that the offices are open between 9:00 and 17:00 from Monday to Thursday (opening hours on Fridays are from 9:00 to 14:00), the vast majority of procedures are processed between 9:00 and 14:00, with higher concentrations in the late morning period. Moreover, whilst certain offices are saturated with service requests and visits, others have a capacity to attend to more people and are often within a short distance and easily accessed via public transport.

The fundamental objectives of the recently launched prior appointment service for certain procedures are as follows:

• A substantial reduction of waiting times: attention is particularly focused on the reduction of average waiting times for the most complex procedures and the radical reduction of the percentage of people who are forced to wait more than 20 minutes before receiving attention. Limits to the waiting times for the most complex procedures are guaranteed.
• Improved office capacity management: within each office (making full use of the opening hours, particularly in the afternoon period) and between the various offices (steering the citizen towards those offices with a greater capacity to attend to his or her needs than those offices that are saturated with requests, whilst respecting citizens' right to choose in all cases).

The previous appointment service was launched on the 4th of February 2008, producing a reduction of the average waiting time, in year-on-year terms, of more than 50%.

Appointment arrangement is an Electronic Administration service that is available on the www.munimadrid.es web site, opening up the possibilities of choice for those citizens who have access to Internet, but who nevertheless wish to be attended to in person, whereby this service combines telematic appointment arrangement (or appointments arranged via the City Hall’s 010 telephone service) with in-person service provision.
In accordance with the points made above, the electronic appointment arrangement service has been subjected to a usability analysis, which involved both experts (heuristic analysis) and a laboratory test wherein citizens' reactions to the application were studied, in an attempt to improve the ease of use of the system and thereby increase the success rate of appointments arranged via Internet.

The incorporation of new services

With regards to the multi-channel provision of citizen services resulting from the availability of Electronic Administration services, attention should also be drawn to the wide range of possibilities in relation to the payment of municipal taxes via the various channels afforded by Lineamadrid.

For a number of years, the City Hall of Madrid has offered citizens the possibility of paying municipal taxes via the www.munimadrid.es website. This service has proven to be highly popular, and the percentage of users shows year-on-year increases of more than 30% in recent years. The provision of this public service enables citizens to discharge their taxation duties, whilst improving the processes of taxation management within the City Hall, thereby contributing to public management of a higher quality.

Nevertheless, whilst from the point of view of Electronic Administration, when considered in isolation, this service can be seen as satisfactory and in accordance with the criteria for effective multi-channel service provision outlined above, we perceived a need to augment the scope of this service to incorporate those citizens who were unable or unwilling to use the Internet as a mechanism for the payment of municipal taxes.

Thus, with attention to the criteria of increased coverage and coherence of municipal services via the various channels of Lineamadrid, citizens are now afforded the possibility of paying municipal taxes via the Lineamadrid citizen services offices and the 010 citizen telephone service. In the case of the latter, citizens may call at any time of the day in order to employ this service, whereby the City Hall, and particularly its channels for the provision of citizen services, becomes a mediator for the interested party, aiding him or her (inserting data on his or her behalf) to carry out the necessary operations. This telephone service employs the same infrastructures, grounded on Internet standards, that the citizen would use in the event that he or she personally dealt with the operation via the municipal web site.

Suggestions and complaints

Internet has consolidated its position as the preferred channel via which citizens address the City Hall of Madrid in order to register suggestions or complaints in relation to the operation of public services and the condition of municipal installations.

Indeed, more than 60% of the suggestions and complaints received over the course of 2007 were formulated via the Internet, whilst another telematic channel, the 010 telephone service, proved to be the distant second most widely used media for this purpose during the period, accounting for 17% of the total.
Conclusions

Having drawn attention to the fundamental mechanisms for the provision of citizen services in the City Hall of Madrid along with certain milestones and important projects in this area, we can now reach the following conclusions:

- Electronic Administration, in particular the telematic integration of citizens in administrative processes and public management via the Internet, is indispensable to the improvement of the quality of public services at general level and, more specifically, to greater service efficiency.

- The citizen services of the City Hall of Madrid take advantage of the possibilities afforded by telematic processing as a strategic tool.

- Citizen services must incorporate multi-channel strategies that facilitate coverage for the entire target population, with particular attention to those individuals who, as a result of their circumstances or characteristics, encounter difficulties when attempting to access public services.

- More specifically, attention must be drawn to the advisability of drawing up and setting in motion ambitious accessibility and usability strategies that, above and beyond strictly technological or managerial considerations, focus on the objective of including each and every individual.

- Electronic Administration services can act as agents that link or elements that provide structure to multi-channel citizen services. Indeed, its role is fundamental to the development of these types of strategies.

- The progressive incorporation of new services and the unicity and coherence of content throughout the various channels are key elements to the strengthening of the model herein outlined.
The role of the e-Government in the context of the management of the urban development policy: challenges and topicalities

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Foreword

The purpose of the European Union (EU) competition policy is to ensure the economic efficiency (maximisation of consumer welfare and the optimal distribution of resources), legal stability and the development of the common market. The enforcement of the competition policy in Lithuania is related both to the process of the implementation of the EU norms, as well as to the political, economic, social and technological environment of the State, in addition to the level of the e-Government in view of the global changes. In the context of the Western European eEurope 2010 initiative, where the society becomes an active part of the urban development process the introduction of the management experience essentially determines the progress in the legal, economic and social urban development methods. There is an observable trend of changes in the relations between the State, municipal self-governance and he taxpayers – enterprises and the population. Increasingly due attention is being devoted to the territorial development and the improvement of quality of life.

Failing to completely ensure the fulfilment of self-governance functions and in view of a number of related factors, local authorities fail in all cases to retain the initiative of the urban development planner, as well as the developer of the urban architecture. This happens when Lithuanian municipalities (differently from the States with long-term urban planning traditions) are not the fully-fledged owners of their territories. Therefore it is necessary to ensure that under the conditions of the democratic and initiative society, the public becomes one of the initiators of urban development initiators, next to politicians, the administration and the property developers. Hence becomes urgent the need to change the attitude towards urban planning and the city formation policy. The purpose of the present article is to assess the e-Government status in the context of the urban development policy management and submit proposals concerning its improvement.

E-government status in Lithuania

E-government can be described in a narrow or a broad sense of the word. In the narrow sense of the word e-Government is related to the provision of information and services by electronic means by public authorities. In the broad sense of the word the e-Government refers to various aspects of the introduction of IT in the public sector since
the provision of the services cannot be separated from a wider context (communication channels and provision methods, means of communication between the authorities and the public, competence of officials in public and municipal authorities in the area of IT, the possibilities and the competences of the public to use IT tools). These different concepts are readily reflected in the e-Government development planning documents of individual States.

The ideas for the introduction of the e-Government are related to the efforts pursued in a number of States to modernize the public sector. The e-Government, however, is not a change of purely technological nature, an intrusion of IT into the existing governance structures and processes. E-government should be assessed from the political and the social perspective. From the political point of view the e-Government may be treated as a democratic mechanism since it is related to the public information processes, provision of information to the society and the development of the public area. The social aspect of the e-Government is related to the trends prevailing in the knowledge society: the e-Government consolidates and further develops the changes in the transformation of the information society into the knowledge society, related to such factors as the impact of Internet, digital divide and the approach of the authorities towards global factors, etc.

In response to the on-going globalisation processes and the need to strengthen the competitiveness on the global markets the EU has defined a goal that was pronounced in the Lisbon strategy adopted by the Council in 2000 – to develop in Europe a competitive knowledge economy. With a view to implementing the Lisbon strategy the “e-Europe” action plan was developed that constitutes an inseparable part of the Lisbon strategy and the basis for all information society development initiatives in the EU. The Lithuanian national Lisbon strategy implementation programme is based on the macroeconomic (promoting the enhancement of productivity and the growth of competitiveness), microeconomic (promoting the competitiveness of Lithuanian enterprises: the conditions facilitating the use by business entities of the public sector R&D and investment into R&D developing the capacities of the public sector R&D; knowledge and state-of-the-art-technology-based society; and the proper functioning of internal market in Lithuania) and the employment policies.

The e-Government development in Lithuania is a continuous process implemented in individual stages. Since the very birth of the e-Government project (in 2001) a number of plans have been scheduled to be implemented. The e-Government schedule was adopted in April 2003 designed to ensure the attainment of the 2010 objectives. Up to this date quite a number of minor works and projects under the e-Government concept has been completed; however there is still a lot of outstanding initiatives and tasks, still pending problems of have been completed and The principal obstacles to the development of the e-Government prevent the appearance of the preconditions for attaining the major strategic objectives of the public demonstration sector – to develop a public administration system that is transparent, efficient, result-driven and, being based on IT ensures a quality servicing of persons.

Based on the review of the Lisbon strategy implementation progress since 2004, Lithuania is mentioned neither among the poorest nor the best performers (except that it has attained the most notable progress in the market liberalisation areas). According to the Lisbon competitiveness index the best results in Lithuania have been achieved in
the areas related to the financial services sector, the development of the telecommunications, transport and the utility services network development, as well as business environment, partly – to the sustainable development and market liberalisation. The lowest indicator has been assigned to the information society development. The major difficulties related to the competitiveness of Lithuania in the context of the EU and the global trends stem from a relatively slow development of information society; low level of the innovation and the research and development activities; the digital divide that made itself specifically visible in the transitional period and is still persisting.

Based on the data of the Department of Statistics under the Government of the Republic of Lithuania of 2007, in the course of the year the number of households having a PC increased by 15 percent, the number of households with the internet access – by 27 percent. According to the household survey data the number of households acquiring PCs and internet access in the course of the past several years has been rapidly increasing. In Q1 2007, 42 percent of Lithuanian households had personal computers and 40 percent had internet access. In the course of four years the share of households having personal computer increased by more than twice, and those having the internet access at home – by 6.5 times. 40 percent of all households were, in Q1 2007, internet users. In cities internet access was available to every second household and in rural areas – every fourth (23 percent). Most of internet users were browsing internet by means of personal computers (desk or portable), every second household – by means of a mobile telephone (52 percent). 23 percent of the households having the internet access were using only the narrow-band internet communications: out of them 38 percent indicated that the broadband communications facility is too expensive them, and every third household (31 percent) indicated that they did not need such broadband communications. During the period reviewed 49 percent of 16-74 year olds were internet users (in Q1 2006 – 42 percent). The most active users of internet were schoolchildren and students – 99 percent of the respondents. Among employed population those using internet accounted for 58 percent. The need to have the internet access is significantly reduced in households with the inhabitants older than 74 years of age with only very few responding as having internet access at home. For the purpose of the calculation of the computer and internet usage indicators Eurostat normally includes into the sample the households having at least one person below 75. 44 percent of such households were enjoying the internet access at home. 55 percent of persons belonging to the 16-74 years of age bracket had used computers at east once. Majority of computer users are young persons. 4 percent of persons in the 16-24 age bracket have never used a computer, and as many as 94 percent of the respondents from 65-74 year olds. In Q1 2007, 52 percent of respondents from the 16-74 age bracket were computer users and from among them two thirds (66 percent) were using computers on a daily basis, and 27 percent – at least once a week.

The current situation in relation to the public internet access points in Lithuania is described as follows:

- 700 internet access points have been installed (300 installed by a private business initiative “Window to the Future”; and 400 under Phare programme).
- In rural areas total 1,100 public internet access points will be established (additional 400 internet access points will be established in the near future).
- 83 internet access points operating since 2002 will be upgraded.
- internet access points will be networked and operated in a centralized manner.
The data of the survey on the public services on-line availability allow a conclusion that in Lithuania part of the public services transferred to the virtual space has nearly remained unchanged since 2004, and currently the indicator is below the EU average. The report on the availability of public services published in June 2006 contains the data on the level of transfer of public services in the EU Member States, also Norway, Island and Switzerland [20]. The level of transfer of public services to the electronic media in the States described in Fig. 1 is on average 50 percent. In Lithuania the shares of the services transfer is lower than the average in the above States.

![Fig. 1. The share of public services completely transferred to the internet [20]](image)

The survey conducted by the Information Society Development Committee under the Government of the Republic of Lithuania reported the following levels of the compliance of the internet websites of public authorities institutions:

- Institutions under the Government – 54.5 percent.
- Ministries – 52 percent.
- Counties – 49.3 percent.
- Institutions subject to the requirements of general regulations – 38.2 percent.
- Courts and the Prosecution Service – 38.1 percent.
- Municipalities – 36.5 percent.
- Institutions under the ministries – 35 percent.
- Other institutions – 32.4 percent.

According to the data of the survey, most of the public authorities did not manage in a timely manner to redesign their internet websites, specifically lagging from the general requirements are entities, public institutions subordinate to public authorities. The first ever survey of the internet websites of municipalities from the point of view of their compliance with the general requirements has shown that within the overall context the websites show a medium degree of compliance with the general requirements and in most municipalities the provision of electronic public services has just started.

Based on the survey conducted by the Information Society Development Committee in 2007 (with the participation in the survey by the authors of the article N.K. Paliulis and...
J. Raudelišnienė), most of the municipalities in Lithuania provide only level 1 and level 2 maturity public electronic services. Major cities have definitely attained the largest progress in terms of the transfer of public services into the Internet facilities:

- Klaipėda city Municipality (total services of different maturity levels (Level 1 – Level 4) – 111 services (75 percent) services transferred.
- Vilnius Municipality (109 services (74 percent) transferred).
- Panevėžys Municipality (77 services (52 percent) transferred).
- Alytus Municipality (75 services (51 percent) transferred.
- Kaunas Municipality (66 services (45 percent) transferred).

Among those that have transferred the provision of public services into the electronic media to the least extent are regional municipalities. The services most commonly provided in the websites of municipalities are the following:

- Level 1 maturity services – information on the organisation of the general education of children, the youth and the adults, the procedure for the issue of licences for retail trade in tobacco products; the procedure for the implementation of the solutions of territorial planning, the procedure for the implementation of the solutions under the general and the detailed plans.
- Level 2 maturity services – a possibility to download electronic forms required to obtain the design terms for the design of residential houses, a kitchen garden house, to perform the reconstruction of objects of industrial, or public purpose, or design new objects; redesign an apartment, or obtain the permits for construction, demolition or repair, obtain licences for retail trading in tobacco products and alcoholic beverages.
- Level 3 maturity services – a possibility in the internet to fill in the application forms necessary to be issued a repeated certificate on the civil status, also necessary to obtain permits to organise peaceful mass meetings in public places, organize concerts, festivals, sports and commercial events, or obtain archive certificates.
- Level 4 maturity services – an on-line facility to file an application and also to receive a response has been so far put in place only in the Vilnius Municipality offering a service designed to issue the certificates on social benefits available by residents.

According to the data of the survey the most demanded among residents and business entities are the following e-Services provided by municipalities:

- Calculation and payment of social benefits and the provision of social services and other social assistance.
- Surveillance of the operation of buildings, issue of the collection of technical conditions for building design and construction permits in the manner specified by laws.
- Management of State assistance for the acquisition of housing and the provision of social housing.
- The establishment of the procedure for trading and the provision of other services in market places and other public places, the issue of permits (licences) in cases provided by laws.
- Organisation of passenger carriage by local bus routes.
- Management of archive data.
In the opinion of the representatives of the municipalities that participated in the survey the major problems related to the development and the use of e-Services are the following:

- Insufficient information and advertising on public e-services.
- Insufficient compatibility of public services among public sector institutions.
- No master plan or general vision as to the creation of e-Services has been developed.
- The e-Services are not sufficiently user and administrator friendly.
- No possibility for signing the electronic documents by electronic signature, part of the documents have not been uploaded into electronic media (e.g., old archive documents).
- The legal basis governing the provision of the services have not been adjusted for the transfer into the electronic media.
- There is no inter-institutional integrated network, charges of some institutions for the services provided are excessive.

According to the first half-yearly data of 2007, 20 percent of Lithuanian residents of the 15-74 age bracket had applied to the public administration institution (indicator for 2006 – 14 percent). The most frequent purpose for visiting the internet websites of public institutions is to retrieve the general information about the institution and the areas of its activities (68 percent of the internet website visitors), to retrieve information about the services provided by the institution, and the procedure to obtain such services (37 percent), to find any legal or administrative information of interest.

Overall, the scope of the use of e-Services is increasing: according to the data of the survey 28 percent of the visitors to the public sector websites were submitting the questionnaires completed in an electronic form or other information necessary to receive the services provided by the institutions. In most frequent cases residents were using the e-Services related to income taxes (44 percent of the internet website visitors), job search (27 percent), training (19 percent), search for legal information (18 percent), and transportation services (18 percent). Respondents indicated as most required the income tax (40 percent), job search (32 percent) e-Services, and those related to health care (24 percent). The best developed public e-Services provided by public authorities in Lithuania are those related to the income tax declaration, job search, search for information stored by public libraries, social contributions, customs declarations, provision of statistical data and public procurement.

The generalisation of the survey’s findings allows a conclusion that the development of the e-Government in Lithuania is an on-going process. The principal obstacles to the development of the e-Government prevent the appearance of the preconditions for attaining the major strategic objectives of the public demonstration sector – to develop a public administration system that is transparent, efficient, result-driven and, being based on IT ensures a quality servicing of persons. The major problems stem from a relatively slow development of information society; low level of the innovation and the research and development activities; the digital divide that made itself specifically visible in the transitional period and is still persisting. In the opinion of the representatives of municipalities surveyed the major problem is the absence of a master plan or a vision for the development of the electronic public services. All these problems and challenges have a direct impact upon the management of the urban development policy.
The impact of the information society upon urban development

One of the most important characteristics of modern democracy is a possibility to access information and knowledge, actively disseminate own ideas, participate in the community decision taking process thus affecting the decisions by municipal authorities. This would provide for proper preconditions for the enhancement of the transparency of the urban planning process and involve in it a major part of the city community (Fig. 2). According to the American researcher L. Wirth, a city or part of it is the creation of the society. In States that have a long-developed communal cohabitation traditions, the creation of cities has developed the features of inherited urban architecture. Thus the modern democratic principles acquire a vital significance. A deliberated participation of citizens in public life is the only legitimate method to express the public opinion and only to the extent it is capable of assisting the community to assume the responsibility for the consequences of its actions. The societies that are known as having progressed in the development of democracy uses a number of terms, virtually of identical meaning, to describe the participation of the society in the formation of urban architecture: Public (Citizen) Participation, Public Consultation, Public Involvement, Public Meetings, Public Private, Partnership (PPP). Based on the theoretical surveys conducted by K. Lynch on the methods and ways to disclose the peculiarities of any cities, and facilitate the formation of the public opinion of their cities, a vital role is acquired by the interface e between dynamic and static factors [18], the impact whereof expedites the disclosure of not only the visual, emotional or functional meanings of the city, but also its values facilitating the understanding by city residents of the importance of their participation in the development of city plans, and understanding that under an influence of numerous individual minds the overall image may be modified and eventually yield a number of new collection versions of urban architecture and images characteristics of the epoch in question. This is exactly the venue of the dormant reserves and resources of the part of Vilnius community (55-77 percent) theoretically willing to participate in the city development process but deeming it to be a meaningless undertaking. According to D. Held “the society must be guided by a publicly developed concept of the common good”. Therefore, unless the citizens are provided for a possibility to “efficiently participate” and “obtain conscious understanding” broad circles of the society will at all times remain marginalised in respect of the democratic process and will have no cognitive measures to be able to take any collective decisions when agreeing on the criteria of the common good being created [19]. Ironically, this very realistic information so inherent to architecture is being very scarcely understood or perceived by majority of the society.
The participation of the public in the urban planning processes depends on the composition and the method of the involvement of the participants that include the citizens, territorial community or society, interest groups, influence groups, etc. The application of any democratic principles is to be assessed in the context of a number of formal and informal factors that determine the activity of public involvement in the urban planning processes. As the results of the surveys conducted in Lithuania have shown, most respondents believe that the information society development is in the first place necessary for all citizens (about 80 percent of the respondents), with only an insignificant share of an opinion that this is necessary for the authorities – to enhance the transparency of their activities and the development of democracy. The situation clearly allows a conclusion that Lithuanian residents are still not adequately prepared to actively participate in the public and municipal administration. This is also confirmed by another opinion of the respondents where only 7 percent of the residents (Fig. 3) believe that the information society development will affect their possibilities to participate in politics, i.e., public and municipal management. On the other hand, a significant portion of the residents (49 percent) relate the information society development with the improvement of economic conditions.

While a fairly tangible part of civil servants (41 percent) believe that the transfer of their activities into the virtual space would accelerate the decision making process and will make their performance much more transparent (Fig. 4), there is still an outstanding problem of a fairly large share of civil servants showing some reluctance to transfer their activities to the Internet (Fig. 5). Likewise, nearly half of them (49 percent) indicated their unwillingness to allow the involvement of tax payers’ into their activities (Fig. 6). This thus explains why only about 60 percent of them were in favour of the introduction of a “one-desk” principle (Fig. 7) although this would undoubtedly increase the possibilities of the society’s involvement in public and municipal administration.
The assessment of the results of the analysis in view of the inefficiency of cooperation between the public and the authorities clearly disclose the gaps apparent in the situation (that are specifically inherent to the States with the democratic system only evolving, such as Lithuania), also the presence of continuous conflicts and an increasing difficulty to coordinate the actions for the attainment of common goals (“fronts”, opposition movement and public movements come into stage to protect the interests that eventually become a tool for playing political games specifically in pre-election campaigns). When consolidating the principles of the sustainable urban development and enabling the territorial communities to communicate with the local authorities, the Lithuanian city residents may also in the long run be gradually integrated into a modern and well-designed urban space characteristic for the epoch. A conducive environment is a result of joint work and efforts that originally stem from a good choice and good projects. Driven by willingness a territorial community can create and maintain such conducive environment by affecting the decision making process of the authorities in order to accelerate the implementation of e-Government – and this will never be achieved by a single individual or a group of persons, this can only be the result of the collective activity in the society and the individual efforts.
The system of urban plans

Under the market, i.e., competition conditions a special significance in self-governance is acquired by an optimized planning system wherein a particular importance is attached to general and strategic plans and other lower level planning documents. Not only the planning process, but also an efficient system of monitoring of the implementation of any plans become of special importance. The need to ensure a proper monitoring referred to in the Law on Territorial Planning [4] (LTP) is rendered completely declarative since it is not substantiated by any legal acts or regulations. It is absolutely necessary to develop a realistically operating system that would ensure a possibility to continuously monitor, analyse and design the changes in the urban development, arrive at conclusions while projecting the development trends, amending and supplementing the territorial planning documents, and adjusting the development priorities. The process will become fully efficient only upon the development of an integrated national plan implementation system. This will require ensuring a full clarity of the assessment criteria; a system ensuring a comprehensive and objective analysis of urban development and the changes, and the development of the system for accumulation, storage and processing of information and decision making. Regretfully, as of today the theoretical considerations concerning the implementation of the plans in the form of various guidelines and regulations (some of them have not yet been developed or are being developed without assessing the complexity of planning documents of different kinds) are poorly efficient which prevents the appearance of any integrated approach toward the urban development policy and the optimisation of a well-grounded short and long-term perspective of the development of the cities.

The analysis of the planning systems used in the States of the Baltic region [3] in terms of the levels of document types and document interface has shown that all aspects of the development are substantiated, in the first place, on the basis of theories. Thus detailed or specialized plans (in Lithuania there is a special type of planning), and the programmes on economic, social and other issues are the integrated parts of an overall plan. Therefore the legal acts and regulations currently effective in the country should identify and reflect the principles of the identity of concepts, understanding and contents. For the development of the municipal territories to be efficient it is necessary to develop an integrated strategic-level urban development system (Fig. 9) that would involve all areas of activities of municipalities and all governance levels, as well as the subjects operating outside the boundaries of municipalities.

The legal acts currently effective in Lithuania provide for different treatment of the contents of plans and different definitions of the contents of plans of different levels. One version of definition has been provided in the Law on Territorial Planning of the Republic of Lithuania [4] that provides for a complicated and confusing definition of the system of plans, the procedures and processes of the development of plans. A different definition is provided in the Law on Land ([L]) [5] whose Article 2 describes the land management projects, schemes and land ownership projects. A third version of the definition can be found in the Law on Regional Development of the Republic of Lithuania (RPÖ) [6], or the strategic planning methods approved by the Government of the Republic of Lithuania [7] that basically focus on the organisational issues related to the development of strategic plans. Therefore any discussion on the differences in the contents of the processes triggers problems and discussions on the interface of the General plan and the Strategic plan (SP) and their place in the integrated system of plans.
A number of uncertainties arise because of different wording and wording in the definitions of the objectives and tasks of territorial planning and the contents of the plans. The latter are not in any way differentiated within the meaning of the TPL [4] and it should be understood (and the society understands it exactly the way) that such plans are to be applied to territories of any size, any level or type of planning. The ambiguity of the concepts, e.g., in relation of the coordination of plans, approval of the plans by the society, approval of the concepts by decision-makers, or the complete absence of concepts such as “public interest,” “legitimate expectations” not only confuse the organizer of the planning activity, the owner of the property or the investor (who maintain their own interpretation of the contents), but also create conflict situations.

For example, the analysis of the contents of the Vilnius city General and Strategic planning documents allows a clear observation that the current analysis, solutions and the hypothetic peculiarities of the monitoring system are essentially overlapping (Fig. 8). It is natural that both documents in respect of the same territory must have the same development policies, visions, priorities, objectives and tasks. Therefore such overlapping can hardly be justified.

The city development management strategy is a broad-scale concept of the use of resources with a view to attaining the objectives prescribing for the procedure for the use of the limited resources of the cities, the perceived directions of the further urban development to which the resources will be channelled. Furthermore, the urban development concept defines the competitive advantages of any city – its financial potential, productive potential, competent governance, etc.

When assessing the above aspects the planning system model has been proposed providing for the plan integration zone (Fig. 10). The general and the special plan solutions are integrated within the said plan integration zone. The strategic development priorities defined in the general plan solution are exactly the elements of the strategic plan. The more detailed, related to territories and additional tasks are being addressed in another part of the general planning process while adapting them to the specific urban development situation.

Fig. 8. Integrated model for the strategic level of complex planning
Thus the general plan and the development priorities provided therein are being successfully integrated in the strategic plan that, being constituent parts of one document supplement each other while seeking the general objectives of the city development. The SP document focused on purely economic matters and those related to finance planning these issues being withdrawn from the general plan solutions would represent a further step towards an integrated planning system. The analysis of the plan systems in European States [8] has shown that the plans are mutually harmonised and supplement each other, in the first place by levels, by integrating into such plans and other planning documents, including the strategic planning documents a tool for the formation of the programme budgets, however, without separating them from the development of a specific territory (which is only natural, since the issues such as financing and other economic issues cannot be addressed isolated from a specific territory). A proposed integrated model for the management of urban plan system (Fig. 9) integrated the general planning and strategic planning processes into one integrated plan (IP). The developers of this model were guided by an idea that the planning process is actually the process of the selection for the direction of the organisation's movement, as well as the methods and the ways to be applied for the purpose of the attaining of the established objectives. The integrated system of plans includes all types of plans and is designed to attain the established objectives. The system of plans also covers all time spans, assesses the territorial aspects and provides for a possibility to plan in all levels of the city development and in all functional areas of activities. A mandatory feature is the continuity of plans – short-term plans result from the specification of long-term plans [9].

Fig. 9. Integrated planning management model
The general territorial planning, according to the provisions of the Law on Territorial Planning of the Republic of Lithuania [4] is defined as a process and procedure for regulating the land use planning for defining the intended purpose of the territory and land use, the priorities, the environmental, monument protection and other conditions, for developing a system of land, waters. However, this provision is only partly correct since it does not provide for the system of investment by municipalities and private entities. Furthermore, according to the Free Market Institute [10], in their general plans municipalities turn to planning not only the budget, but also the private investment funds and the scopes thereof, the areas of financing mechanisms, etc. Therefore it is doubtful whether the part of the general plan that includes the planning of the economic development is truly indispensable. A different, a more progressive investment policy formation methods would be to go into planning of the investment of the municipalities and other investment affected thereby. Consequently, one of the purposes of the General plan would become not specifically economic development, but rather the provision of suitable conditions for such development.

The application of a complex planning model and supplementing of the effective legal acts would expedite the formation of the long-term integrated complex urban development plans the constituent and each other supplementing parts thereof represent the General and the Strategic plans. A integrated plan of the territory would become a forming guideline of the directions of the strategic urban development, and the social and the investment management tool based on all resources of the municipality, including its financial resources. The General plan would cover all areas of activity and would become a reflection of a territorial projection of the long-term development prospect; the General plan would provide for a more detailed specification of methods for attaining the predefined objectives in the lower levels of territorial planning. Such plan would provide for the directions and the timing of perspective directions of urban development until which the predefined objectives are to be attained, and would identify the territories eligible for investment. The strategic (economic) plan would define the principle directions for the development of the city (area of municipal operations) having regard to the available resources in respect of planning works of all levels of the municipal activities. A short-term economic plan would be based on the operational policy chosen by the municipality (on the basis of the political parties in power) and would become a tool of budget formation.

The General and the Strategic plan development stage is exactly the stage at which the future vision of the city is being defined. This stage involves the segmentation of the forthcoming operations, assessment of the planning processes completed (monitoring results), changing of the overall general culture of the organisation (city inhabitants, etc.) and the application of the motivation system. Therefore the principal purpose of IP is the definition of the directions of the territories the changes whereof, for example in view of the changes of the architecture formation and the development policy, would be implemented through changing the general and the strategic plans. However, the experience and the policies of the urban architecture formation accumulated in Western European States (Sweden, Austria, Finland) shows that this would be an extremely infrequent phenomenon. Thus, the Toronto Official plan provides for the strategic directions of the city for the coming 30 years. Such directions are further specified in thematic strategic level documents, e.g., a municipal housing strategy, a transportation Strategy, Community Service and Facilities Strategies and others. [11]. Where necessary, the thematic plans are further specified by secondary master plans that are integrated
into the urban design solutions. A similar planning system adopted in Vienna (Austria) forms the vision perspective in the strategic level by developing the city strategic plan (an integrated planning document) designed for the prospect of the coming 20 years. The solutions of this planning document are being implemented through special plans (Master plans) that are more detailed and developed in a strategic level [12], e.g., the city transportation system masterplan the implementation whereof shall be ensured by the department specifically established for the purpose. Planning of the economic indicators in the General plan solutions would be a risky undertaking. This would inevitably cause conflicts between the General plan organiser and the remaining part of the society that would prefer a different activity in the territory. According to the results of the surveys [13], about 80 percent of the participants in the planning process showed, when developing the General plan of Vilnius, enhanced interest in their own land plots. This results in the involvement of disputes on the contents of the concept of private and public interests (the latter have not been defined in any legal act governing territorial planning). This triggers a certain tension, hinders the development or the territories are developed from the budgetary financial resources (for less developed countries, including Lithuania this is specifically disadvantageous, and furthermore not exactly possible). What is needed is a flexible strategic planning document defining in the first place the matters related to the policy of urban development rather than the methods of the realisation of the policy which is a prerogative of lower level planning documents. In case of Vilnius Municipality such document would be represented by the conceptual part of the General plan whose solutions define the polyfunctional centre system of optimisation of urbanistic structure, the environmental protection terms and the peculiarities, the image and other matters normally defined on the macrolevel.

This shows a necessity to establish a differentiated procedure for the involvement of the society into the planning process by types of territorial planning, rather than by levels that could limit itself to information and consulting with the society. This, however, would mean the involvement of the public prior to starting the planning of a specific territory or by ensuring a permanent participation in the planning processes, like in, for example, Scandinavian countries. Currently the first version of this process in Vilnius has acquired some features of informal planning, therefore about in about 90% cases the final results of the city architecture formation projects are different from those discussed initially.

Seeking to ensure the efficiency of the management solutions it is necessary to initiate some adjustments in the municipal governance structure that would ensure the conditions for the attainment of the predefined objectives. The purpose of the proposed IP model (that has been already partly implemented in the management of the development of Vilnius general plan (Fig. 10) is, primarily, while focusing the attention of political majority in power to seek the attainment of the objectives by integrating the interface of strategic level documents.

For example, the responsibility for the territorial planning in the Vilnius Municipality, according to the current organisational structure of the Vilnius Municipality lies with the division within the Urban Development Department, while the strategic planning is the responsibility of a division within the subordination of the Director of the Administration. This causes a problem of the coordination of actions by individual divisions within the process of planning. This is by far not an encouraging factor when introducing a system for monitoring of the implementation of the plans or developing an information system in the municipality.
The monitoring exercise involves also the assessment of the environment and the changes of its components, taking of managerial decisions that change the urban development plans and the methods of their implementation. A mandatory requirement for the monitoring of the development of a city (a municipality) is to ensure that the data being accumulated comply with the requirement of monitoring, supervision and the comparability with the plans of other cities (municipalities) of all long-term and medium-term municipality development plans and objectives. A permanently operating monitoring division (which has not yet been set up in Vilnius Municipality) would be in charge of the analysis of the conditions in the city and the city development trends and the submission of well-substantiated proposals for the formation of the programmes and the adjustments of the master plan solutions.

Based on the results of the surveys that have been in detail discussed at international and national conferences [15, 16] a conclusion may be drawn that in Lithuania in most cases the basic democratic principles of urban planning are being neglected. Despite the presence of a balanced territorial planning ideology pragmatic interests and a short-term benefit principles prevail. Very frequently, failing to understand the interrelations between the general, special or detailed plans and their hierarchy the public finds itself confused concerning the objectives, tasks and solutions. On the other hand, taking advantage of the gaps of the relevant legal acts part of the society often purposely acts in negligence of public interest. Thus, the provisions of Article 3(2) of the Law on Territorial Planning concerning the possibility to form a healthy and harmonised residential, working and recreation environment and the development of better living conditions in the entire territory of the State are interpreted by part of the society as [4], “...ignoring of the opinion of the land owner, and disregarding of the proposals of the applicant (most often the land owners)”. Therefore when submitting the proposals, or filing claims, or comments or expressing any criticism (e.g., in respect of the General plan) the provisions of the Law are often completely disregarded. The public not infrequently comes up with an opinion that the General Plan is a mechanic total of detailed plans that, when necessary, may be easily modified. With the participation in the planning processes of territorial communities, citizens, non-governmental organisations, informal groups of the society other objectives come into stage designed to address other tasks that are at the moment much more pragmatic and relevant for day than the examination of the urban development strategies. Differently than, for example, the practice of the Estonian planning system [17], in Lithuania the public opinion is often based on the ambiguities of the Law on Territorial Planning. Article 7(2) of the Law requires on the General Plan level “to define the altitude and intensity parameters of the planned territory, or reserve the territories for the development of communication corridors, engineering and communications infrastructure and other objects necessary for meeting the public needs” [4]. But this is nothing more than the tasks of detailed planning that are discussed when establishing the territory management and the use regime, i.e., the boundaries of land plots and specific objects, that come into contradiction of the provisions of Article 2(33) of the Law concerning the tasks to be implemented by the General plan when establishing a conceptual regulation for the management of the territory.
These ambiguities eventually evolve in a factor triggering a conflict in the society in view of the requirements of Article 7(2) of the Law on Territorial Planning to develop a territory management, use and protection concept that is neither appealing nor, often, properly understood by the society. Regular citizens often are unwilling to see in such solutions any long-term future vision preferring to treat the solutions of the General plan addressing only the small details of their every-day life, i.e.:

- Development of the infrastructure of their yard.
- Planning of greenery planting in the quarters of multi-apartment houses.
- Proposals concerning the arrangement of the streets (holes, driveways into the yards, establishment of the red lines of the streets, etc.).
- Proper delineation of the boundaries of the land plots among neighbours, etc.

Thus the General plan solutions often limit themselves to the problems related to minor plots of land (which was the case in 1998-2005 Vilnius General Plan) completely ignoring and disregarding the level of macrosolutions.

**Conclusions**

The e-Government development in Lithuania is a continuous process. The principal obstacles to the development of the e-Government prevent the appearance of the preconditions for attaining the major strategic objectives of the public demonstration sector – to develop a public administration system that is transparent, efficient, result-driven and, being based on IT ensures a quality servicing of persons. The major problems stem from a relatively slow development of information society; low level of the innovation and the research and development activities; the digital divide that made itself specifically visible in the transitional period and is still persisting. In the opinion of the representatives of municipalities surveyed the major problem is the absence of a master plan or a vision for the development of the electronic public services. These problems have a direct impact upon the management of the urban development policy. In the view of the development of the consciousness of the Lithuanian community in conjunction with the changes in the understanding of the quality of life concept the
experience of the urban development plan formation on the basis of democratic principles has acquired a special significance. The undemocratic and inefficient cooperation between the public and the municipal authorities has a long-term adverse effect hindering a sustainable urban development. Negative effects of the urban development planning processes also stem from a subjective interpretation of legal acts; shortage of information necessary for decision-taking; some hasty and unsubstantiated decisions not infrequently taken on a wrong level (including those related to the consideration and approval of the urban development design documentation); a sluggish and inefficient introduction of innovations; inadequate competence of the personnel in charge of decision-making; passiveness of the society; insufficient incentives and motivation of municipal personnel to adequately fulfil their duties and develop professionally.

In the country, at all levels including the national level it is necessary to form integrated and well-formalised territorial development planning and monitoring systems with a well manifested interface between the general and strategic planning procedures from the point of view of publicity, and with the lower level planning documents. It would be an expedient solution to differentiate the participation of the society in the planning process by individual levels. This should necessarily become a top priority task for the Government.

The municipal authorities (including Vilnius Municipality) needs to review and amend the respective rules and regulations and initiate the improvement of the underlying legal basis defining the procedures for the development of the General Plan and the Strategic plan with a view of mutual interface, enhanced compatibility and integration with other legal acts. The General Plan solutions should not be overloaded with excess information not related to the strategic tasks of the territorial development, although providing for a clearer definition of the criteria to establish a hierarchy of poly-functional centres, and the principles for the self-development of territorial communities.

The urban territorial planning in the initial stage should be executed on the basis of monitoring and discussions of the projects in their pre-design stage with the local communities. When defining the indicators of the monitoring system it is necessary to assess the overall development trends: the managerial capacities of municipal authorities; activity of the society, public spirit when being involved in the decision making process; the communication of the public and the authorities by ITT tools; the capacities of the authorities to respond to the public challenges (to justify and substantiate the actions, recruit the appropriate staffing, introduce and operate the most state-of-the-art ITT facilities; disseminate the knowledge about the urban development, etc.); trends in the changes of the urban development (decentralisation, polyfunctionality), regulation of the urban development of the territories (development density, intensity, altitudes, etc.); consideration of public interest, and educational processes in the public.

The use of the modern ITT ensures unique possibilities to make the decision-making process transparent and involve into it the members of the urban community. The officials of municipalities also need to be granted some freedom of actions and, accordingly, increase their liability for decisions taken and ensure the transparency of decisions. An efficient and transparent system for the control on the preparation, taking and execution of decisions needs to be put in place involving members of the society and using the modern ITT facilities. This will ensure the possibilities to expediently respond to all kinds of challenges, and address the most urgent issues related to the functioning of the city and the city development in an efficient and transparent manner.
References


4. The Law on Territorial Planning of the Republic of Lithuania (version of Official Gazette, 2004, No.152-5531);
6. The Law on Regional Development of the Republic of Lithuania (Official Gazette, 2000, No.66-1987);
8. COMPRENDIUM OF SPATIAL PLANNING SYSTEM IN THE BALTIC SEA REGION COUNTRIES 2000 by the VASAB 2010 [interactive], VASAB Secretariat [viewed on 15 December 2006]. Internet access: <http://www.vasab.net/>;


NOTES

1 Where the impact upon the economic development is assessed as a possibility to participate in the urban planning process.
The on-line police station

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The Italian Police has created the World’s first “On line Police Station” launched on 15th of February 2006. It is a web site (www.commissariatodips.it), always at disposal of the citizen where he can:

- Find general information.
- Download forms.
- Make an On line complaint about a computer crime or theft and loss.
- Receive valuable advices.
- Interact with experts.
- Report to us conduct and events of illegal nature on the Net.

As the Police station is the point of reference in case of difficulties, so the On line Police Station was born to be a point of reference on the Web.

The On line Police Station is a new service offered to all the citizens. It realizes, for the first time in the world, a Police structure oriented to the web surfers speaking their own language. It was born to be a point of reference on the web.

In fact, as the metropolis’ streets are often considered, in the reality and in the imaginary collective source of traps for the citizen, in the same way the roads of the data transmission can hide dangers that worry the navigator of the Net. To these citizens was intended to transmit a reassuring message.

In fact in this Office they can report a computer crime and interact with experts who can answer questions about Internet security.

Now the citizen is in the middle of the Institutions. In fact, the On line Police Station reaches him in his office, home and so on. Therefore the citizen’s trust in the Institutions increased and now he can browse the Net safely.

It offers a service easily reachable and easy to use by everybody also from people with handicap that would risk to be left apart. That’s why it is written in a simple language even when are explained technical details. With the birth of the On Line Police Station, the first one in the World, we have:

- A new, efficient, useful and high quality service easily reachable and easy to use by everybody also from people with handicap that would risk to be left apart. It removes the citizen discomfort and reduces bureaucracy.
- A permanent communication channel between the citizens and the Police.
• Less work for the Police Stations that have the chance to use their personnel to have more control and security on the territory.
• A safe point of reference for the citizens on the Net.
• A Virtual Police Station entirely realized with the skill of the personnel of the Italian State Police. No funds were asked to the Italian Government.

The results obtained with the birth of the On Line Police Station can be summarized as follow:

• Less work for the Police Stations that have the chance to use their personnel to have more control and security on the territory.
• A new concept: the citizen in the middle of the Institutions. In fact, the On line Police Station reaches him in his office, home and so on. Therefore the citizen’s trust in the Institutions increased and now he can browse the Net safely.
• More trust in the Institutions, more crimes reported, ready knowledge of new crimes on the Net, more security of the citizen surfing the Net, full knowledge of the social phenomena that could become new kind of crimes (bullying etc.).
• The results obtained from FEBRUARY 15TH 2006 to JUNE 30TH 2008 are: 1.300.000 visitors, 31.000 request for information, more than 27.000 reports about crimes on the Net and 13.000 On line complaints.

These results have been obtained:

• By replying, in real time, to the citizen’s needs.
• By making the use of the web site (www.commissariatodips.it) more easy. That’s why it is written in a simple language.
• By being very helpful.
• By trying to reach people of all sort of ages.
• By giving a quick response to the citizen’s reports communicating what has been made in that matter.

The creation of an Online Police Station has lightened the workload of conventional police stations. The citizen who goes to a conventional police station to finalize a complaint lodged online will provide the officer in charge with a reference number corresponding to the online compliant. The complaint will be then printed and signed by both the complainant and officer in charge. So far results are excellent, especially if we consider the increasing number of both visitors to the Online Police Station website and the requests for the services it offers. We should also mention the good feedback from users who often express their thanks for the initiative, and give their suggestions and advice on how to improve it.

An online questionnaire is being prepared. It will ask citizens to rate our services. The web & computer security area is the actual operations centre offering web users professional and specialized support, providing them with useful information and advice on how to surf the web safely. This is a specific area where users can delve into the subject, lodge complaints and make reports online, and discuss with our experts in specific forums.

With this innovative portal, the first and so far the only one of this type in Europe, citizens can give their contribution to step up security levels. They can count on and inform the Communications Police experts about dangerous aspects and situations regarding the Internet.
The increasingly closer contacts with citizens have also disclosed new forms of crime. Among them, the theft of e-Bay accounts and their fraudulent use to swindle unknowing users, new telephone fraud methods, phoney job offers designed to capture applicants' personal details, sham notices of wins in the lottery cashable only after paying a sum of money, spreading viruses targeting the latest mobile phones, and so on.

The Online Police Station comprises the following virtual rooms: ICT Security, Immigration, Licences and Permits, Recruitment, Passports, Minors, and Complaints. In each room, visitors can find detailed information on each topic, as well as downloadable forms to obtain licences, authorizations and documents.

The most innovative service, however, is the ICT Security area.

Besides the above mentioned services, in this area citizens can lodge their complaints online or report information about computer crime to us. Every online complaint lodged by a citizen is electronically sent to the Communications Police station chosen by the citizen himself/herself. A dedicated network connects Communications Police stations to the Online Police Station.

This service has lightened the workload of conventional police stations, and more officers could be assigned to other tasks. The citizen goes to a conventional police station to finalize the complaint lodged online and gives the online compliant reference number to the officer in charge. Once printed, the complaint is signed and the procedure completed.

We are working on an another project enabling citizens to lodge a complaint or make a report by means of a mobile phone. Contacts have already been made with major Italian telephone companies.

Due to the interest raised internationally by the Online Police Station, the Postal and Communications Police Service has received many governmental delegations to whom the project has been presented in detail. A debate has followed among the delegation members and Online Police Station officers. Many questions have been raised as to the implementation of a similar initiative in their countries. The Online Police Station project has been presented at Interpol head quarters within the European Working Party on Information Technology and received unanimous appreciation by European police forces.

The project has been welcomed with such enthusiasm to make us think that the Online Police Station will represent very soon a common standard of the Police services to offer to all the citizens of the European Union.

A model of the Online Police Station is being prepared in order to be proposed to police forces in the EU countries. Combining a technical project based on the Online Police Station experience and the working process necessary for its operation, the model will be adjustable to different network structures and legal systems.

To advertise the birth of the Online Police Station several agreements have been made with the main web portals (Adnkronos, Virgilio, Kataweb, Libero, Tiscali, Diritto and diritti, Msn, Google, Yahoo) that created on their home pages a link bringing to the Online Police Station web site.
Therefore the main press agencies took part to the opening ceremony and personnel from the On line Police Station is present with a stand in the main fairs about net security and public communication.

At last some agreements have been made even with the main consumers' and users' associations and with the ANCI (National Association of the Italian Municipalities) which have fully supported the new project advertising it and being open to every kind of collaboration with the web site.

Recently, the Online Police Station in cooperation with eBay, launched a campaign named "Good sense in all senses" aimed at advising citizens about how to buy safely on the Internet.

The On Line Police Station has won the European e-Government Awards 2007, held by the European Commission, in the category “Most Inspiring Good Practice” as a result of a public vote from the citizens.
Croatia and e-Government services

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Introduction

One of the strategic goals of the Republic of Croatia is the reform of public administration.

The businesspeople and citizens of Croatia have the need and the right to have an administration that is reliable, open, transparent, responsive and consultative. Since ICT is a tool that can facilitate these changes in the administration, the Government initiated the development of a national ICT strategy as early as April 2000. The National Strategy of ICT Development was adopted by the Croatian Government and the Parliament in January 2002. In 2003, the Central State Office for e-Croatia was established and the Government adopted the Program e-Croatia 2007, which was aligned with the eEurope 2005 Action Plan. The objective was to transform the Croatian society into an Information Society. The Central State Office for e-Croatia prepares annual Operational Plans for the implementation of ICT in the Croatian public sector.

During 2003 another office was established, the Central State Office for Administration. The Office is responsible for the organization of the administration and has prepared the State Administration Reform Strategy envisaging the adoption of principles of good governance in line with EU standards, improvement of the legal system, provision of better services due to a modern, professional and trained civil service and simplification of administrative procedures and establishing e-Administration. Even though formally this Strategy was adopted in March 2008, its implementation already began years ago.

In Croatia we define ‘e-Government’ as an innovative use of Information and Communication Technologies transforming the public administration and its relationship with the citizens and businesses. The result is, or it should be, an increase in the speed of administrative processes, increase of transparency, increase of anticorruption effects, more efficient work of the employees, higher quality of services, and cost-cutting.

The development of e-Government required adjustments to be made in several different areas, one of which was the legal framework. Then, an accessible and secure infrastructure had to be implemented with the widespread availability of broadband access at competitive prices. Being aware of this requirement, the Government adopted a Strategy for the Development of Broadband Internet Access by the year 2008 in October 2006. Last, but not least, an education system had to be put in place to build capacities in the administration. Civil servants have to be able to use ICT, to participate in the development of ICT projects, and finally to manage ICT projects.

The Central State Office for e-Croatia is the institution responsible for the coordination of all ICT activities financed from public funds. This Office is headed by the State Secretary directly responsible to the Prime Minister. Being aware of the importance of the implementation of information society policy, the Croatian Government established the
National Information Society Council in 2004, an advisory body on policy and legal documents related to the information society, which proposes measures for sustainable ICT development and cooperation between stakeholders in building an information society in Croatia. The Council includes representatives of the relevant Government ministries, the private sector, the academic community, and civil society.

**Legal requirements**

The legal framework was adapted to provide assurance as to the legal validity of electronic documents and signatures and at the same time to protect the individuals with regard to automatic processing of personal data. This is an overview of the important laws that were adopted:

- **Electronic Signature Act (OG 10/2002).**
- **Ordinance on the register of qualified certification authorities for electronic signatures (OG 54/2002).**
- **Ordinance on the records of certification authorities for electronic signatures (OG 54/2002).**
- **Ordinance on the measures and procedures for the use and protection of electronic signature and advanced electronic signature, electronic signature and advanced electronic signatures development tools and certification system and obligatory insurance for certification authorities issuing qualified certificates (OG 54/2002).**
- **Ordinance on the technical rules and conditions for linking certifying systems for electronic signatures (OG 89/2002).**
- **Regulation on the scope of operations, content and responsible authority for operations of electronic signature certification for state administration bodies (OG 146/2004).**
- **Electronic Commerce Act (OG 173/2003).**
- **Electronic Document Act (OG 150/2005).**
- **Convention on Cybercrime (OG 173/2003), Convention on Cybercrime is implemented in Criminal Code.**
- **Law on data protection (OG 103/2003).**
- **Electronic Communications Act (OG 73/2008).**
- **Law on freedom of access to information (OG 172/2003).**
- **Law on personal identification number (OG 60/08).**
- **Law on the adoption of the Convention on Cybercrime (OG-IT 9/2002).**
- **Information Security Act (OG 79/07).**
- **Regulation on information security measures (OG 46/08).**

**Development of services on the Internet**

The development of Internet services started with the setting up of web pages providing information on the certain areas of responsibility of public institutions. This is also one stage of sophistication, which can prove very helpful in some cases. Even this is the sophistication stage one, applying the standardized indicators of the eEurope 2005
Action Plan, it can be very helpful in some cases. One example of this is providing information on whether identification documents issued by the Ministry of Interior have been completed. The Ministry simply puts the information on the web that the previously requested documents are ready for handover.

In 2005, the Government decided to charge all state bodies with the preparation of forms, obligatory for the communication between the citizens and the administration, in an electronic format, put them on their web pages, and it ordered the administration to allow the citizens to use those published forms as official documents. Under this obligation the sophistication stage 2 applying the standardized indicators of the eEurope 2005 Action Plan was achieved. Until the publication of forms on the Internet, everyone had to purchase a particular form, so the Government had more than one goal in making this decision. One was to make the communication with the administration cheaper for the citizens and the other to give the citizens a reason to enter the virtual world and motivate them to learn how to use the Internet.

At the same time, the Government was working on the implementation of different services. One very important principle is the ‘One Stop Shop’ (HITRO.HR) principle. The importance of this principle lies in the fact that citizens and businesses need not be familiar with the structures and responsibilities of different public administration bodies to get the services they need. The Government was aware that it is important to develop a system built around services and not institutions. On the other hand, the development of an intermediary system will prevent direct communication between service providers and service users and in that way help in the fight against corruption.

Implementation of the One-Stop-Shop (HITRO.HR) concept

The One-Stop-Shop idea was developed on the one hand for the real world, and on the other for the cyber world. In the real world, offices were established in FINA (Financial Agency – state owned agency) were counters of all institutions involved in the process of opening businesses are located in one place, one next to the other. Such offices exist in all counties of Croatia and the citizen has to go to just one place to open a business.
Simplified schematics of the One-Stop-Shop principle for the provision of public services. The citizen needs to come to only one outlet (either the window or a web portal), which serves as a focal point for forwarding his/her application to relevant institutions and their services: statistics bureau, Banks, Pension and Health insurance authorities. On the other side the One Stop Shop concept was implemented in the virtual world by creating one web portal ‘Mojauprava.hr’ (the translation would be ‘MyAdministration.hr’) as the focal entry point for access to information and e-Public services provided by different public administration bodies. All information is organized around services.

The pilot project ‘e-Tvrtka’ (‘e-Company’) is a combination of the two approaches, which was launched in Varalj County. To open a company the entrepreneur has to got to a notary-public, who will make all arrangements through the Internet application ‘e-Tvrtka’ and the business is started within 24 hours. The pilot project has finished successfully and it is promoted in other counties of Croatia.

**e-Crew**

With time, more and more sophisticated applications were developed. One very important service is the e-Crew project prepared by the Ministry of the Sea, Tourism, Transport and Development (today the Ministry of the Sea, Transport and Infrastructure). The basic idea of this project is to make life easier for both the citizen and tourists. Croatia has an exceptionally beautiful coast and is one of the most attractive holiday resorts in this area, especially for sailing and yachting.

e-Crew is an application developed and installed with the aim to give the firms that rent boats and yachts the possibility to register the crew and the passengers over the Internet just by using a smart card with a digital certificate. At the same, time the stay of
foreigners on charters can be registered with the Ministry of Interior. This application helps the administration to have a complete overview of the charter businesses and to avoid the so called ‘black charter’.

**IS OSG project**

In 1998, the Ministry of Administration, now the Central State Office for Administration, started a project called the ‘IS OSG’ information system for the registration of the civil status of citizens. In all registrar offices a local network was installed with the same application. It was essential to enter the data from the old books into the information system so as to make possible to interconnect all data and give the citizens the possibility to get their civil status certificates wherever they are in Croatia. Now almost all registrar offices are interconnected and the locally entered data are replicated in the central information system in Zagreb. For a lot of administrative services a birth, marriage or death certificate not older then 6 months is necessary. Citizens had to travel, ask family for support or write to the registrar office in order to get certificates. Now it is possible to get the required certificate in any registrar office in Croatia with no regard where the data was entered. Also, the school authorities are entitled to check the civil status of children who enroll in schools, while the parents do not have to go to the registrar offices to get birth certificates if they do not want to.

The end goal of this project is that the civil servants that are obliged by law to check the civil status data have the possibility to check the data electronically. Of course, only if the citizens give their informed consent as required by the Personal Data Protection Act.

The scope of the ‘IS OSG’ project includes the voters’ registers. They are entered locally and replicated in the central system. Even in 2003 there was a possibility for the citizens of Croatia to check the accuracy of their addresses in the voters’ register. They could do that using the web application or using their mobile phone by sending an SMS to the central database system.
Public registers

The Central State Office for Administration has published all registers that are open for public on the Internet. The following registers are published: the Register of associations, the Register of foreign associations, the Register of national minorities, the Register of political parties, Register of trusts, Register of foundations, Register of religious communities and Register of legal persons of the Catholic Church, which are available for browsing and viewing at www.uprava.hr. All interested parties have the possibility to check the validity of registration for all mentioned entities.

e-Services

The Tax Administration has prepared e-Services to make it easier to fulfill tax obligations in due time. The services are:

• ePKK is an e-Service that gives all taxpayers a secure and easy access to their tax data. The overview is given for own data and for data they are authorized to see.
• ePDV enables full preparation of VAT registration, control of validity of entered data, electronic signing of forms, sending of electronic forms, confirmation receipt, status check of sent and received electronic forms.
• ePD – enables registration of the profit tax, control of validity of entered data, electronic signing of forms, sending of electronic forms, confirmation receipt, status check of sent and received electronic forms.
• eID – enables the preparation of electronic income tax forms to all employers and payers of salaries or pensions or the taxpayers themselves, control of validity of entered data, electronic signing of forms, sending of electronic forms, confirmation receipt, status check of sent and received electronic forms.

The application is developed as client-server application. The development of new services continues.

e-Pensions and e-HealthInsurance

Important e-Government developments for businesses were the implementations of e-Services for the registration of employees in the Croatian Pension Insurance Institute (HZMO) and Croatian Institute for Health Insurance (HZZO).

e-Pensions is a web-based system of the Croatian Pension Insurance Institute designed for the registration of employees in the pension fund program. The electronic form is available on the website of the national pension fund authority (The Croatian Pension Insurance Institute). The registration process can now entirely be performed via the Internet, including authorization, authentication and electronic form processing.

e-HealthInsurance is a web application of the Croatian Institute for Health Insurance aimed at the registration of employees and their family members in the health insurance fund. This service is at the moment available to businesses that are registered in the register of the Croatian Institute for Health Insurance (HZZO). It is possible to register employees and to terminate the registration, as well as to change their insurance data electronically.
e-Cadastre

The Cadastre represents the basic registry of cadastre data in the Republic of Croatia. The data is quintessential for planning the use of land and land development, which is important for the entire economy. Obtaining the data from the cadastre or the land register office used to be a difficult but very important task. Now the data are available on the internet via the e-Cadastre web application. This project is aimed at making cadastre data available to citizens and the process transparent, and motivating the citizens themselves to update the information on their real estate property.

The catalogue of cadastre data is a collection of officially verified data on land and real estate. It is collected in the information system of the Central Office of the State Geodetic Directorate, which receives input from 115 cadastral offices from all over the country. This catalogue is publicly accessible through the web, and after selecting the desired cadastral unit, a user only needs to enter a cadastre plot number or number of his/her landowner certificate.

e-Land Register

The electronic Land Register is an information system, whose objectives are to create a unique database on land ownership data for the whole territory of the Republic of Croatia, to streamline issuance of ownership entries and make them widely available, to enable effective updating as well as matching land ownership data with cadastral data, and to assist courts in resolving the backlog problem of land-ownership cases.

Recently, the project the Real Property Registration and Cadastre project (RPRCP) has been initiated with the goal to interconnect land register data with the cadastre data (digital cadastre plan with associated cadastre data).

Judges Web

The Judges Web is a non-governmental and non-profit organization whose aim is to use modern technology in order to speed up and improve the quality of court operations, as well as to make the information relating to court proceedings accessible. The web site provides information on legal topics to lawyers, judges and students of the Faculty of Law and to the general public. The Ministry of Justice took the project over in 2005.

The e-Court Registry Project

Even in 1995 it was possible to view the Court registry via the Internet. At that time it was necessary to have a username and password to access the data, while today the registry is open to the public.

The Court registry contains data on the name, headquarters, activities, board members, company and capital stock of business subjects. It is of importance for the process of registration of business subjects.
e-Customs project

The Customs Administration offered its first Internet services to international forwarding agents in 2001. In addition to dispatching, forwarding agents can check the current charge of their bank guarantees and insight into the register of customs duties. These services provided considerable savings in the forwarding business operations, faster submission of customs declarations and a lowered risk in business operations of forwarding agents.

The Commission for the Resolution of Conflict of Interest in the exercise of public office

The Commission for the Resolution of the Conflict of Interest is appointed by the Croatian Parliament for the purpose of the implementation of the Act on the Prevention of Conflict of Interest in the Exercise of Public Office and other provisions, good practice, political responsibility and officials’ credibility.

To fulfill that goal a web application was developed and implemented where the list of assets of all appointed officials in Croatia is accessible. It is also possible to report a conflict of interest via the Internet.
IS COPiHRM

IS COPiHRM is a joint project of the Ministry of Finance and the Central State Office for Administration. The goal of this project is to prepare an information system for central calculations and payments of salaries and common human resource management for all employees in the state and regional administration bodies and the public services bodies. The objective is to have a central overview of all salaries together with a database of human resources in the administration and a common human resources policy.

e-Health

A big tragedy happened in 2001 in Croatia. More than 21 people died during dialysis in different hospitals in Croatia. No one knew of the number of deaths at that time since they happened in different hospitals and different areas in Croatia and no one knew that these deaths were caused by the same cause, which resulted in the tragedy. To prevent such tragedies in the future, the Government of Croatia decided to develop a central health information system where all health data of all citizens will be stored and analyzed. The system has been set up, and all general practitioners are obliged to have a computer in their practice and to send health data on their patients to the central system. In the future all health institutions will be computerized and connected to the central health information system. Analysis performed on that data will give a possibility to notice and prevent problems like the one from 2001.

ARHiNET

In March 2008, the Ministry of Culture and the Croatian State Archives presented ARHiNET, which is the unique national archive system which serves as base for the informatization of Croatian archives. The functions of this web-based system are: archiving, safekeeping, processing and use of archived material. The register of archived resources and registers of the Republic of Croatia are a part of this system which enables an on-line access to the data on archived records that are stored within the State Archives or with other owners of the archived material.

Central Database Registry on Personal Data

In 2005, The Croatian Personal Data Protection Agency established the Central Database Registry on Personal Data. This was done in accordance with the provisions of the Personal Data Protection Act and the Ordinance on the management method and form for recording private data. The registry consists of a main database, subsidiary database and records. All data are entered via the Internet and the database is open to the public.

Education

One of the most important parts in implementing new technologies is the education of civil servants to be able to use this technology. In that respect an education for the basic computer literacy was established.
ECDL - European Computer Driving License

The Central State Office for Administration organizes ECDL courses and exams for basic and advanced ECDL modules. After successful examination, a diploma is awarded confirming the acquired knowledge that is recognized worldwide. The type of diploma can be: ECDL Start (any of the four modules have to be passed), ECDL Basic (seven modules have to be passed) and ECDL Advanced (all 11 exams have to be passed successfully). The basic modules are passed by means of the Croatian automatic testing and examination system – ATES, while the advanced modules are tested in the classical manner.

Training of civil servants for the introduction of e-Administration

The Central State Office for Administration and the Central State Administrative Office for e-Croatia, in cooperation with the Faculty of Organization and Informatics from Varadin, the University of Zagreb, and the University of Paris 1 Pantheon Sorbonne, France, are implementing the project entitled Courses for Institution Building in Croatia – eGovernment (courses for institutional strengthening in Croatia – e-Administration) under the TEMPUS programme. Partners in the project are the London Metropolitan University, Great Britain, Institute of Applied Informatics and Formal Description Methods (AIFB), University of Karlsruhe, Germany, the University of Zilina, Slovakia and the University Mykolas Romeris, Vilnius, Lithuania. Under this program 40 civil servants were trained for the implementation of ICT projects.

This project is interesting not only because of the training outcome that is impressive but also as a project where people of different nationalities, different professional backgrounds and different working environments are trying to work together.

Conclusion

The efforts made by Croatia were considerable and taken into account. The World Bank’s report, *Doing Business in 2007* and *Doing Business in 2008*, ranks Croatia among the Top-10 reformers for two successive years.

UNCTAD’s 2006 *World Investment Report* ranks Croatia among the group of countries with major investment potential, explicitly mentioning HITRO.hr as a measure facilitating investment. The EU’s 2006 *Lisbon Review* ranks Croatia first of six potential member countries. Finally, according to the recent World Economic Forum report, Croatia rose by 13 places in the Global Competitiveness Index over the past year.
E-government – Driving Public Service Transformation

Austin Gatt,
Minister for Infrastructure, Transport and Communications, Malta

Transforming the public sector to reach strategic goals

Public service administration is a major contributor to Government’s building pillars for a robust and competitive economy. It is Government’s main arm in allocating critical resources to the areas most needed in order to build a strong infrastructural scenario when faced with particular international economic pressures. Malta lacks natural resources but attracts strong human resource infrastructures within the public sector, amongst other key areas. One may therefore conclude that a robust Public Service is a key location factor that places Malta in terms of international competitiveness.

Modernising the country’s administration practices will continue to improve Malta’s strategic importance. To meet these challenges, the public service infrastructure needs to be innovated continuously, and it has to therefore be delivered not only in high quality but also cost-effectively. ICT and e-Governance play a major role in improving standards of service. The Public Service has undergone a wide-ranging programme of reform in this regard. The service has led the way in Malta in its application of information and communications technologies (ICT). It boasts a state-of-the-art ICT infrastructure which has served as the springboard for electronic government.

Citizens and businesses are key protagonists that push towards the modernisation in structural and legal infrastructures of a country and e-Government instills the need for public administration services to align themselves more closely in order to become the citizen’s and the business’s ‘new partner’. E-governance covers a whole range of livelihoods; students, adults and old people alike. It is the extent of coverage of livelihoods that makes e-Government a success. The citizen has a right to access the services offered by government and have his or her request completed. It is no longer a question of obtaining information but a question of a service materialising, leaving the customer positively satisfied with the end result.

The evaluation criteria for an e-Government service that meets the citizen’s needs will be based on the projects and implementations of technologies that Government will implement in the very near future. To date, more than 60 services for citizens, business sector and administration are being offered on the Internet. Key e-Services include information on pharmacy roster, blood donor registration, booking for health related programmes, MEPA applications, verification of next VRT date and road license renewal.

Government has also embarked on a series of initiatives that will continue to open up the Public Service to the client. By the beginning of the year 2010, Government will issue e-Passports and smart ID Cards to all Maltese citizens. The e-ID Card, as it will be known, will allow users to interact with the Public Service fully online and to carry with them a powerful set of applications such as an e-Wallet and an e-Health Card. Another e-Project involves the revamping of Mygov.mt. This portal will become the primary platform through which Government interacts with citizens and businesses.
Government will encourage online participation and also partner with the private sector to add more value to the users of the portal. In addition to furthering relations with the private sector, Government is also taking up a series of initiatives with e-Government agents such as Local Councils. Local Councils have been an increasingly powerful intermediary for e-Services, IT education and access. They have enabled the progressive devolution and decentralisation of Public Services. Historical and hostile Public Service central offices that seemed to be designed to keep people away are slowly being replaced by local village centres that provide a friendly personalised service, which make Government closer to the citizen. E-government in this context has been used to increase access to the Government.

Government will also go through a phased deployment of a complete e-Procurement and G2B (Government to Business) online exchange framework which will improve its public procurement function. E-procurement is the process of Government purchasing goods and services electronically – starting with the tender publication, the identification of the vendor, the placing of order(s) and then the management of the delivery. E-procurement allows Government to attract more and better suppliers, to improve its processes and to maximise its purchasing power. The system delivers direct benefits to both Government and its suppliers.

**Addressing public administration dysfunctions**

E-government plays a key role in solving the public administration’s weaknesses. It addresses this through the re-allocation of the right human resources, the reform of financial practices, the application of ICTs and the re-organisation of bureaucratic processes. On the other hand, the trends to move towards complex e-Governance principles introduce issues of security, communication standards, data standards and harmonised common information infrastructures. Malta has already set the legal framework to ensure proper regulation for electronic commercial and service activity.

Government has recognised the need to change the way it organises processes. The main aim of e-Governance is to bundle services and offer them under ‘one-stop-shop’ government solution. Such initiatives are already in force. Government offers an opportunity for citizens to forward their complaints and concerns to any public service department through one channel. It also offers an informational update service for particular categories of society such as job seekers, in order to enhance their opportunities in the local and international job market.

With regards to human resource organisational issues within the Public Service, technological change and re-engineered organisational structures pose very demanding challenges to civil servants and the overall leadership framework. This is due to the fact that traditional management structures have to be abandoned, revamped and changed. In the past, tasks were centralised and resources were concentrated to increase the quality of the service. Traditional managerial tasks were directed and structured to honour the citizens’ requests and produce effective results.

The transformation of public administration is empowered by technology, knowledge and will. IT applications facilitate numerous routine activities that exploit human energies that may have been otherwise used to support strategic decisions.
of attention shifts from administrative pillars of public services to the exigencies of the community at large. E-government puts an end to excessive bureaucracy within the public service administration and becomes a major catalyst for change in society. The citizen will then learn to adapt to such changes. As a result, the resources of the public sector will be allocated according to need, and employees are redeployed away from repetitive and duplicated functions in order to serve citizens better.

In order to achieve this, Government’s programme for modernisation of human resources has been injecting the required ICT skills throughout the public service. Moreover, Government has also extended these ICT education courses to the public at large.

Government has recognised the need to change the way it controls the various structures. Since ICT brings about an efficient administration, human and budget resources are controlled and monitored and therefore become oriented towards results and cost efficiency. Through information technology, the public service produces feasible technical procedures that allow for this control to take place. Some effective managerial control concepts include strategic control, quality management, target managements, budgeting, product budgets and benchmarking.

**EU and international cooperation**

E-government has also played a key role in placing Malta within the international scenario. For all issues of human resources, control, organisation and e-Government, the national and international exchange of experiences, together with cooperation from government entities, the modernisation of public administration has been increasingly promoted. Also, collaboration with other member states forms part of the international exchange program on the modernisation and transformation of public services administration.

Malta has reached various good scores in the area of e-Government. In 2007, Malta was accepted as a member of the prestigious International Network of e-Communities (INEC), joining the world’s leading ICT locations. The Intelligent Community Forum has also chosen Malta as one of the world’s top 20 ‘smart communities’. During that same time, the consulting firm Cap Gemini has ranked Malta 2nd in the on-line sophistication of e-Government services and full availability online of e-Government services in Europe.

**Malta’s e-Government vision for 2010**

As can clearly be witnessed, the Maltese Government has embarked on a series of short-term and long-term projects that will produce long-term benefits. The Maltese Government is planning to provide all government services online by the end of the year 2010. The Smart Island Strategy concentrates on continuing to add value through e-Government by knocking down the bureaucratic barriers between citizens/businesses as the clients and Government as the provider of Public Services.

Web 2.0 has emerged as one of the major forces impacting on people’s Internet usage patterns by providing them with online tools to contribute content, express their opinion and to leave feedback on other user’s contributions. The most successful of these tools dealing with content (e.g. wikis, photo and video upload and social networking sites
etc...) opinion and feedback (e.g. blogs, ranking engines for online vendors and travel options etc...) have revolutionised the social lives of their users causing an entire paradigm shift in interaction. This has not escaped the attention of search engines in particular and of the advertising and media industry at large who have in their turn been adapting and also contributing to this wave of online change.

The latest statistics published by EuroStat show an unfortunate reality whereby the take-up of online public services (through filled forms) is about 13% in Europe even if about 60% of Public Services are available online. The contrast between the revolution happening in the rest of the Web and the relatively slower assimilation in the context of e-Government is obviously of concern to all countries which, like Malta, have invested heavily in this area. Governments across the EU are working towards i2010 targets and, in line with this, Malta is committed to providing 100% of its Public Services online by 2010. But we continue to question if this enough.

Government is committed to remould a more client-centric public service based on the pillars of effectiveness and accountability. The usage of e-Government in public service transformation will not only continue to address public service dysfunctions but also to more effectively and rapidly harness the lessons learnt from the application of Web 2.0 to serve citizens and business better. We have understood that the effectiveness of e-Government depends not only on the 24x7 availability of Public Services (which has been the most widely used metric to measure transformation), but in the end-to-end delivery. Internet users expect an immediate response when using the Internet as a medium, an expectation which can only be fulfilled with the re-engineering of the business processes that command Public Service. E-government must be accompanied by cross-departmental information sharing and collaboration empowered by practices that keep the client’s exigencies in focus. The Public Service of the future will shed the old skin of a silo approach, where each business unit operates independently from the rest, to have all units forming a holistic functional whole. Malta has driven this change through political championing and driven the implementation through the various line ministries and departments. Our flagship e-Government portal mygov.mt offers users customisable profiles. It continues to keep up with the market forces and we are confident that its next incarnation, to be live in the deployed in first quarter of 2009, will live up to most of the challenges of an e-Government 2.0. It is Government’s intention to transform government websites from static and dull online versions of government files into dynamic spaces of useful and relevant information, which are primarily aimed at offering consistent interaction, and attractive rich media. The blending of Web 2.0 in e-Government presents a major opportunity for Government entities to listen to their clients and involve them in the transformation of public services into the user-driven ones of the future. With Web 2.0 features, Government will augment the ways it interacts with its citizens. Users of e-Government will get more information about what’s going on get opportunity for communicating their opinions and ideas. Web 2.0 goes beyond the supply of basic information to the citizens.

Government will also be embarking on a nationwide take-up programme. Greater awareness of e-Government services through marketing, workshops and public debate will be pivotal to push increased willingness to use e-Government. This coupled with the natural growth of the Internet continues to motivate Government to promote this as a main source of delivery of information and Public Services. It is understood that the only measure of success in e-Government is the take-up assumed by citizens and businesses as its client.
Innovation in Business and Citizen Services. The e-Government as a tool for Administrative Simplification

Pedro Silva Pereira,
Minister of the Presidency of the Council of Ministers, Portugal

Portugal is underway with ambitious and determined reforms within the scope of both administrative simplification and e-Government.

Within these areas important initiatives are being undertaken with the aim at meeting citizens and businesses’ increasing demand on public sector performance - namely through cutting red tape, process reengineering and dematerialisation of services delivery - but also to address country’s need to improve competitiveness and business climate.

E-government for simplification

Placing administrative simplification and e-Government together in the context of public management reform, was one of the key success factors that Portuguese Government found to support overall objectives for the modernization and innovation in the public sector.

The “Global Information Technology Report 2007-2008” from the World Economic Forum recognizes Portugal as the 2nd among 127 countries to place the importance of ICT into the Government vision for the future. This option Portugal has made to integrate administrative simplification and e-Government into a coherent and wide-ranged set of initiatives (Simplex Programmes) has been one of the first in the OECD countries: simplification without the leverage of new technologies would be an insufficient effort; e-Government without a previous assessment to the potential of enhancement in the current process would be an half of a reform in public services delivery and a lost of opportunity to make a real improvement.
Portugal has recently shown a significant improvement in the online public service delivery, as the European Ranking for Online Public Services makes known, finding itself in the 4th position regarding ‘online sophistication maturity’ and standing the 3rd regarding ‘full online availability’:

This performance put both indicators just above EU (27+).

The following two representative initiatives illustrate, in that order, one example where e-Government added value to simplification (1) and another were simplification enhanced an e-Government measure (2):

1. **On the Spot Firm and Company on-line**

In July 2005 a new system for creating companies, that allows firms — private limited companies, partnerships or PLC — to be set up by making a single trip to just one office and taking about one hour, was launched in the so called ‘On the Spot firm’ option.

One year later, in June 2006, this new simplified system for creating companies was totally dematerialized and made available at the national ‘Business Portal’ — the Company on-line.
Up to June more than 54,000 on the spot firms were established, which represents 72% of the companies created during the same period, with a standard constitution time of 47 minutes. On average 6 companies per day are created on-line.

2. IES – Simplified Enterprise information

Until 2007 periodical information delivery was a company obligation spread among different forms, delivered in different periods of the year to different public services, in a large number of cases repeating data already sent.

When the dematerialization of this process was being designed, allowing companies to comply with this obligation through a ‘one stop shop’ format, the involved services took the opportunity to reengineer the procedures, identifying unnecessary information that could be eliminated and data that could be standardized to allow interchange. This process lead to a new electronic form that is shorter than the sum of the former parts.

This year more than 405,000 simplified enterprise information statements were delivered, merging four obligations into one dematerialized declaration.

A renewed relationship between user and public services

At first, change affected the internal procedures of each and every department, namely with respect to archiving procedures, processing of payrolls, the circulation of information and documents. Then, or in parallel, public services began to relate to citizens and businesses in a different way, providing improved access to information, online interactive services and, more generally, taking a different approach to the provision of services on a face-to-face basis.

Later on and gradually, departments began sharing information. This was followed by the integration of separate services, which became increasingly user-oriented. The focus of the new integrated services became the most important events in users’ lives, such as establishing a company or registering a newborn baby.
At the same time, e-Government and regulatory and administrative simplification were acknowledged as the two faces of a single coin.

The impact of technologies didn’t just benefit the users of the Internet. The development of online services also contributed to improve in person contacts with public services.

The services prepared for web-based channels are also being made available by phone (a much more accessible channel) and provided in person contacts in a standardized fashion, allowing for much quicker responses at frontline services, such as registries, local tax offices or citizens’ shops. The Citizens’ Shops concept is a common public service delivery hub, where different services share the same space and the same standards (especially timetable and service level agreement). Some integrated services are available, for instance “I lost my Wallet” desk. This allows a reduction of costs for the administration making government-to-citizens and government-to-business interactions easier and more convenient.

Also, through a self-service customer support, web-based tools can help bring services closer to citizens.

The second generation of citizens’ shops, the businesses and citizens’ portals and the contact points set up by some public services (health, immigration, customs and tax authorities) are just a few examples that reflect very clearly the advantages for Portuguese citizens of an integrated approach to modernize public service provision.

Integration of the backoffice: a key factor for a citizen centred delivery

As e-Government is a key engine for successful implementation of simplification programmes, simplification of front-office business processes depends on obtaining an integrated and coherent e-Government back office.

A prerequisite to fully implement a simplification strategy based on e-Government is to develop integrated back-office functions, in the scope of the same process, even if resources belong to different organizational structures. This particularly means the sharing of resources - human or informational.

Since sharing resources is one of the main goals for transformation, e-Government enables administration to better achieve its simplification goals. Nevertheless, this integration doesn’t necessarily mean - in what concerns Simplex Programmes philosophy - electronic integrations of back offices. In fact think big but start small is also one of the main principles of these simplification Programmes: a first stage based just on a front office single stop makes all the difference to end users, even if back-office still works and communicates on a paper based mode; integration may further evolve to most sophisticated ways of communication – interchange, database access, and specially interoperability – but the most important lesson is that a citizen centred delivery lies upon a back-office integration.

The success of simplification activities and public service delivery in Portugal depends highly on a full implementation of the programmes in all parts of the public sector. Until recently, there were few effective tools for collaboration and co-ordination between
different sectors. This is a culture under change and moving towards a common binding framework for collaboration and co-operation between stakeholders that move under the same or related processes in the public sector that will significantly improve the implementation.

**Simplification of existing procedures and regulation. The simplex program**

In Portugal, the Simplex programmes - *Legislative and Administrative Simplification Programs* - have embodied all such values, principles and guidelines.

In focusing on meeting the goals of the European Union's Lisbon Agenda on economic growth and job creation, Portugal has decided to create an attractive business climate. With high political priority, attention, and results, a series of extensive and ambitious integrated administrative simplification and e-Government programmes have been implemented in Portugal, since 2006: the Simplex Programmes.

Unique among OECD countries and having attracted significant public attention in Portugal, Simplex programmes aim at improving the efficiency and effectiveness of public service delivery to citizens and businesses as well as improving competitiveness through better regulatory frameworks.

These programmes benefit from integrating administrative simplification and e-Government and have already led to the implementation of a significant number of important initiatives to improve the performance of public sector service delivery.

| 2006 Programme: | 333 simplification/eGov initiatives | 85% completed |
| 2007 Programme: | 235 simplification/eGov initiatives | 83.48% completed |
| 2008 Programme: | 189 simplification/eGov planned |
Simplex has become a high-profile initiative that focuses on how e-Government can be used as a lever for broader administrative simplification activities improving the quality of service delivery.

This effort and results were recognized in Doing Business 2008, where Portugal was considered as a Top Reformer, an in the OECD Report on “Making Life Easy for Citizens and Businesses in Portugal - Administrative simplification and e-Government”. In this report, presented last June, OECD enhances Portugal’s effort to “achieve better efficiency and effectiveness through a range of targeted administrative simplification and e-Government initiatives”. Concerning results, “Portugal has come far in a short period of time in developing basic e-Government components enabling public sector to develop cross-cutting e-government services supporting core simplification initiatives.”

The objectives and orientations of Simplex Programme can be briefed, for each of the end users targeted, as follows:

- **Business** - Avoid and eliminate unnecessary procedures and lighten enterprises obligations, cross-organizing public services and making it possible to answer their needs by life events – to create a business, to provide mandatory information, to extinguish a business...
- **Citizens** - Build a new way of delivering public services, focused on citizens’ needs and based on a multichannel integrated structure. Promote the demand of regular assessment of the citizens’ expectations, facilitating not only the evaluation of satisfaction but also the recognition of new needs.
- **Internal running** – Stimulate partnerships and working networks within public services, concerning the development of new projects. Promote knowledge sharing and experiences sharing, providing the instruments and adopting the procedures in order to spread and reuse knowledge, minimize duplications, rationalize financial resources and increase the efficiency in the re-assignment of human capital.

Within these simplification programs some methods for simplification are commonly used:

- **Doing away with certificates**

Insufficient sharing of information means that citizens and businesses are asked to submit information that is already held by the same or different authorities. Grouping departments and improving internal communication will reduce the need to ask for information in the form of certificates or other “probative documents”.

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**Portal da Empresa**

*Online Permanent Certificate*: Whenever a corporate user needs a trade registry certificate, all he/she has to do is to submit the company’s Online Permanent Certificate access code to the requesting public or private body which can then find the certificate on the Business portal (www.portaldaempresa.pt).

*From December 2006 to the first quarter of the current year over 550,000 permanent certificates were issued.*
• Eliminating paper/dematerialisation
Digitisation of physical documents opens for wider simplification through improved information and data sharing, use of intelligent and interactive forms that can be submitted electronically, enabling users to follow administrative processes online.

_Social Security Direct:_ On-line service that allows companies to consult their data, to declare remunerations and to register or un-register employers to the social security. Citizens can consult their data, including tax-paying history and state of the installments.

Until June more than 68,000 online requests for the contributive situation certificate were submitted.

_Business Portal:_ An on-line service which enables companies to deal with practically all the legal formalities that apply to companies, including the creation of companies and asking for a trade registry certificate etc.

_Portuguese State Official Gazette:_ The paper edition was abolished and the electronic edition was given full legal force.

In addition, an open access policy has been introduced and new services are now provided to citizens and companies. The aim was to provide better and mores direct access to legislation and Public Administration acts and notices.

Savings of € 3,000,000 /year on publishing costs and € 1,000,000 /year on distribution and communication costs, are estimated. Also about 1.400 tons/year of paper are saved.

_The “Citizen’s Card”:_ The card is an electronic ID card which provides all citizens with a digital signature which can be used for electronic authentication when accessing public electronic services.

Until last June more than 104,000 citizen’s cards were issued, 56% of which had electronic signature activated.
• **Simplification/de-bureaucratisation**

Complexity and duplication of procedures lead to excessive administrative work. The aim is to reduce obligations that are disproportionately burdensome or complex for citizens and businesses, and to eliminate unnecessary licences, permits, etc.

> Cutting Red Tape

no longer mandatory: Notarised deeds concerning the situation of a company is made optional. In particular the following acts will no longer require notarising: forming a commercial company, altering its articles/memorandum of association, transforming the type of company, or extinguishing it. These actions will simply need to be recorded at the Trade Registry.

After the first six month of experience, about 60% of all company registrations were already filed without recourse to a public deed.

• **Merging and de-merging of companies**: A public deed is not required for merging or splitting companies anymore and it is sufficient to register the merger or de-merger plans and the actual merger or de-merger at the Companies Registry. These plans, the notice of the general meeting and the merger or de-merger documents are then published online.

• **Simplified Company Liquidation and Dissolution**: these actions take place at registry, without companies having to go through the courts and with no mandatory public deed.

• **Deregulation**

By stating the principle that the public administration trusts citizens, detailed regulation and multiple controls can be ameliorated. This will also entail use of regulatory alternatives such as self-regulation, co-regulation, etc.

> Simplification of Local authority building permits: A simplified system for local authorities to issue building permits is created.

In certain circumstances this new regime will give out of the need for the architectural design to be assessed and licensed, or for work to the inside of buildings to be notified to the authorities in advance.

• **Easier access to public services**

This entails improving service integration, and information and data sharing by increasing the co-ordination between public bodies involved in the same procedure as well as transforming the way people are dealt with at physical contact points, by merging those points and co-locating them.
Harmonising and consolidating sets of rules

This key area aims at improving access to laws and regulations and at making them easier to understand in order to reduce the costs of using and complying with regulation. This will also lead to efficiency gains within the administration itself. The problem is said to be related to the volume, opacity, and limited effectiveness of legislation in Portugal. This key area aims at reducing the amount of laws by consolidating various statutes on the same issue and by analysing alternatives to regulation.

Critical Factors

Simplification programmes highly depend on some key drivers. In Portugal, the following three are the ones that were used as a lever to expand simplification culture and to lead this brand to success.
Empowerment
Since Simplex Programmes are cross-cutting and involves several ministries and agencies a strong political empowerment and central coordination are the key to a strong commitment from the Ministries. The responsibility for the Simplex programmes lies with the Minister for the Presidency of the Council of Ministers, with direct support from the Prime Minister. A dedicated office has been created: SEAM – the Cabinet to the State Secretary for Administrative Modernisation. A State Secretary for Administrative Modernisation has been appointed.

Participation
After a first experience in 2006 it was decided that the following Programs should incorporate users’ participation. Thereby, from 2007 and on, the Simplex programmes are built upon a public consultation next to citizens and business. The input provided is integrated in the Simplex programmes, upon agreement of the different services in charge of the proposed measures’ implementation.

Accountability
The program is annual based. Monitoring procedures are taken monthly and all information available on line. Results communicated each quarter and if there are delays the reasons are posted.

Near future challenge

The Interoperability Platform
Portugal, as other OECD countries, is developing a common public sector organisational and technical platform on which to implement e-Government solutions – a key to ensuring horizontal and vertical integration, and a way of optimising efficiency and effectiveness of e-Government service delivery across the public sector.
An Interoperability Platform for the public sector which, since May 2007, has been managed by the Agency for Administrative Modernisation (AMA), defines an architectural standard with rules and procedures that enable interconnectivity and interoperability between e-Government services. When fully implemented, the platform will provide the public sector with a sharing tool allowing interconnectivity between independent systems and making multi-channel electronic services available.

Simplification Program in Local Administration
Today, collaboration and co-ordination between central and local governments are required. After a recent OECD report assessment, it was appointed the opportunity to build formal and specific mechanism for assessing simplification needs between local and central level and also the importance of establishing an institutional setup for the co-ordination of simplification and e-Government efforts across both levels. This recommendation was recently addressed through the “Municipality’s Simplex Programme”.

Beyond municipal measures - of the exclusive responsibility of each municipality - this program includes initiatives that depend on the collaboration between central and local governments - intersectoral measures - and others to be driven by a group of municipalities, in a shared commitment, and led by one of them - intermunicipal measures; these, in particular, are good practices that have a high potential of being replicated by other municipalities.
Close collaboration with municipalities is key for the effective implementation of many measures, such as licensing procedures. The Simplex programmes - central and municipal - are now targeted at both levels of government.

The next step lies upon the capacity to put into practice the same principles that are shared with the Simplex Programme: coordination, transparency and accountability to the commitment taken by these 9 Municipalities that agreed to get involved with central government in a simplification programme.

**Simplification assessment**

Portugal aims at fitting into the overall European strategy about administrative and regulatory simplification known as the “Action Programme for Reducing Administrative Burdens in the European Union.”

After the challenge launched by the European Council, Portugal made a pledge to support the EU-wide programme aimed at reducing administrative costs for businesses, as well as made a commitment to develop its own national initiative. The goal will be set on the reduction of 25% of the burdens imposed upon business by national regulation, using the Standard Cost Model methodology.

After a pilot experience focused on a limited number of key “life-events”, in order to test this methodology, Portugal is now, in 2008, moving towards the general use of a ‘modified version’ of the Standard Cost Model for assessment of policy burdens.

This option begun with the some adjustments to the pure model and the development of the Portuguese SCM manual - that will include some variables such as opportunity costs of waiting times, response times and delays of the Public Administration - allowing to catch out some other key dimensions of simplification, such as the impact of dematerialisation. Also, the PT SCM methodology will be complemented with technical orientations for process mapping, as a basic methodological instrument for this measurement process.

The 25% reduction goal will focus some selected procedures within the main business ‘life events’. This also means that the measurements that are being launched in 2008 are going to be centred on citizens’/business’ needs rather than legal diplomas, as it is recommended by the ‘pure’ SCM methodology.

**To conclude**

Combining administrative simplification and e-Government development in Portugal is to be a continuous process with a long term goal: enable public sector to deliver seamless services and provide a high quality and less burdensome delivery, to the benefit of citizens and businesses.

It requires a long term commitment, but it aims to reach a long term impact.

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NOTES

1 “Making Life Easy for Citizens and Businesses in Portugal ADMINISTRATIVE SIMPLIFICATION AND E-GOVERNMENT,” OECD 2008
New perspectives and opportunities coming from an integrated e-Government platform
**Accelerating Innovation Cycles in the Public Sector**

Viviane Reding, Commissioner for Information Society and Media, European Commission

This article will illustrate examples where the European Commission has taken the lead role in stimulating innovation in the public sector. Two examples aim to combat market defragmentation through large-scale interoperability pilots, a third example describes a platform for sharing and exchanging good practices, and finally work that supports a paradigm shift from supply-driven to demand-driven service approaches that can better address the needs of citizens and businesses, reduces administrative burdens and involves users in the redesign of services.

1. Introduction

"Almost every political initiative is also an IT project nowadays". This statement was made by Minister Schäuble at the international conference "Advancing e-Government" in Berlin in March 2007 during the German Presidency. It is an excellent quote that perfectly summarises the challenges of ICT and at the same time indicates the impact that ICT is having on governments and administrations. ICT is facilitating administrative change and supporting the implementation of simplified legislative procedures and revision of regulations and legal requirements. In this context, implementing ICT support systems presents a huge innovation opportunity for governments to transform themselves and their interfaces with citizens and businesses.

However, innovation - in its broadest sense - in the public sector remains a tremendous challenge. The internal inertia to innovate can be attributed to the complexity, size and independence of the different substructures of government (local, regional, national and European). The external inertia to innovate is characterised by a lack of a coherent agenda for users, researchers, and industry, in particular service suppliers. The challenge is to strengthen incentives for innovation in the public sector that come from both internal and external innovation ecosystems.

In order to regain the initiative, administrations must be able to anticipate their future needs. They must make sure that ICT solutions deliver efficient and effective government services that satisfy user requirements. In particular, services that interoperate across intra-EU boundaries are vital to maintain cross-border integrity of the internal market. In order to harness the power of new and emerging technologies, researchers must be strongly connected to industry and involved in the work to anticipate future policy implementation requirements. Re-enforcing these links is a vital part of giving vitality to innovation in the public sector.

The European Commission is doing its part to stimulate improved links by bringing together the actors, creating synergies in order to facilitate further improvements in the public sector and ensuring that user needs are in the spotlight. The Commission’s initiatives are strongly backed by the national governments and they combine to combat
potential market fragmentations caused by uncoordinated or non-interoperable implementation of ICT based services. These measures are reflected in the i2010 e-Government Action Plan that was approved by the Council of Ministers in June 2006. The Action Plan is a set of concrete actions designed to maximise e-Government cooperation activities at EU level. The following objectives are targeted for 2010:

- all citizens must benefit from trusted, innovative e-Government services and have easy access to them,
- we must achieve a higher level of user satisfaction, transparency and accountability as well as reducing the administrative burden,
- 100% of public procurement must be available electronically, with 50% of procurements carried out electronically,
- citizens and businesses must have easy and authenticated access to public services and administrations across Europe through a secure and interoperable on-line electronic identity system,
- more tools must be available for public debate and participation in democratic decision-making.

Member States have given their commitment to the goals of the Action Plan. Significant efforts are being made in all Member States and they all now have policies and implementation plans for all five of these priority areas. In essence the agreement to the Action Plan has stimulated alignment and coherence of national policies and a new momentum for transforming public services that is expected to last beyond the horizons of the current action plan.

2. Innovation that combats the risk of defragmentation

The implementation of on-line public services is progressing rapidly in all Member States in Europe. At national level many sophisticated initiatives on electronic identity and on-line public procurement have been developed and launched. Some Member States have fully fledged personalised systems in-place; whilst others have yet to implement similar capability systems. For all governments the focus is to ensure that citizens and businesses have easy, robust and user-friendly access to administrative services.

However, businesses and citizens are also on the move around the EU. Citizens are travelling outside their country, whether for holidays, work, study, for personal relationships, or simply to retire in the sun. Businesses are seeking new opportunities in other Member States, and want to reply to tenders issued in another country, or process financial claims without having to learn 27 different systems. If people need to deal with an administration outside their own country, they increasingly rely on on-line access to the services provided by “foreign” municipalities and national authorities.

Despite the huge advances in national systems and despite the rights for all citizens and businesses to move freely around the EU, national rules and procedures are somewhat different and these differences complicate matters considerably and slow down, for example, establishing a subsidiary business elsewhere in Europe or can impede cross-border responses to electronic procurement.
So, despite the increasing sophistication of national systems, legal, linguistic and procedural differences can cancel out the advantages gained by ICT.

The single market concept requires that all Europeans can move from one EU country to another as straightforwardly and seamlessly as they can in their own country. Hence the need to “join-up” some of the most critical e-Government services so as to ensure that they are seamless and borderless in operation.

The European Commission seized the opportunity to orchestrate concerted action. Interoperability is a key issue and the intelligent and innovative use of powerful ICT tools can underpin the EU-level single market goals. The work will mitigate the risk that proliferation of ICT services will cause new digital barriers to the freedom of movement of people, goods and services in the European Union. However, the approach being taken does not replace national solutions with a new approach, but rather builds on the existing national investments and links them together. The priority challenges identified in the Action Plan addressed electronic identities (eIDs) and e-Procurement. Governments agreed that these are priority issues and have agreed to tackle them at European level in a Large Scale Pilot (LSP) project. These projects will receive financial support under the ICT Policy Support Programme, which is part of the Commission’s Competitiveness and Innovation Programme (CIP). A third pilot is planned for launch under the 2008 work programme and will address interoperability in the implementation by “electronic means” as stipulated in the Services Directive³.

The Large Scale Pilots provide a new dimension to cooperation and a framework on which Member States can build and which can leverage their existing investments. At the same time this framework helps to find a common way forward while respecting national approaches.

2.1. The Large Scale Pilot on electronic identities

The i2010 e-Government Action Plan recognised that seamless operation of eID systems will be a key enabler of secure access to modern public services. This includes access to services from any Member State to any other Member State. The aim is not to create a unique European electronic identity, but to ensure secure mutual recognition of electronic identities by public services across borders. So far, a range of different approaches have been taken by Member States. Some countries favoured an eID smart card, while others wanted to use virtual identification or embedded eID in, for example, passports or identity cards, and some countries are, as yet, undecided on the approach they will pursue.

The project goal is to be able to work with a range of implementations and to develop common interoperable interfaces and authentication procedures that will take account of the differences and result in authentication of users (businesses, citizens and government employees) to access government services of any Member State. The Large Scale Pilot Project will include live testing of a range of commonly used cross-border Public Services. It is intended that all Member States are in agreement with the resulting solution and will subsequently be embraced by all Member States irrespective of whether they were involved in the original pilot. Of course, the solution must be robust, transparent, safe to use and scalable.
This would mean that EU citizens travelling to different Member States could securely identify themselves electronically throughout the EU and deal with public administrations in whatever way suits their needs best – from their PC, from another mobile device, or in public offices. For example, no matter how many EU countries a citizen has lived and worked in, their pension contribution history would be accessible to them using their eID. In essence, eID will ensure that EU citizens would be able to prove that they are who they say they are...regardless of where they are.

A group of Member States have formed the STORK consortium that will implement the eID pilot. STORK (Secure idenTity AcrOss Borders LinKed) intends to define and test common specifications in accordance with open standards for an overall cross-border architecture which is acceptable to all Member States and industrial interests. The pilot will have to ensure that test-services are adequately secure and respect data protection regulations. The STORK project involves partners from both the public and the private sector.

In total 13 Member States plus Iceland will invest some €20M with the Commission supporting 50% of costs from the ICT Policy Support Programme. Clearly, it is of strategic importance to keep non-participating countries informed about decisions and developments on a continuing basis. Indeed some countries may be interested in joining in the pilot tests at a later stage and it is important that the decisions and direction taken by STORK are understood by all. Hence, the consortium will provide 'non members' with regular status reports and provide opportunities for peer-review and feedback.

2.2 The Large Scale Pilot on Electronic Procurement

The same methodology as already described above will be also applied in the case of the Large Scale Pilot for e-Procurement. This second pilot aims at enabling companies, especially small and medium sized businesses (SMEs), to respond electronically and easily to public tenders issued by another country, i.e. cross-border response. This pilot aims to stimulate and increase the number of cross-border procurement responses - which is currently at a low level (5%) of all procurements. Currently it can be a tedious process for a company to present a cross-border bid in response to a tender. Extensive resources are required to ensure correct preparation of paperwork since electronic procurement makes submitting a tender quicker but not necessarily easier in the cross-border situation. Companies usually have to present their credential, proof of their legal existence and financial viability as part of the bid package. Since these requirements can be different in each country, most SMEs do not have the resources required to respond even though they may wish to compete. Governments are the largest purchasers in the EU and yet their overall capability to implement electronic processes for tenders, orders, delivery notes, catalogues, invoices, or payments, is lagging behind major industries. So, there is clearly a huge opportunity to strengthen competition by improving the procurement systems.

The e-Government Action Plan states that by 2010 all public administrations across Europe should be able to carry out 100% of their procurement electronically. The challenges are great. To start with, there are the more straightforward issues of eliminating invoices and orders over fax or email, reducing the amount of data entered manually as well as the time spent in queues, filling out forms and sorting out paper work. Many Member...
States have responded to these challenges by developing electronic procurement systems. While most are very successful for the domestic market, a full fledged cross-border system does not exist. Therefore, the pilot does not intend to replace these systems with one common system, but to build on such existing electronic procurement systems and through the innovative use of ICT enable these national systems to communicate with each other.

Governments have formed the PEPPOL consortium (Pan-European Public Procurement On-Line) to create specifications that can be implemented in each national system. PEPPOL is set to level the playing field for European SMEs, the backbone of our economy. In so doing it will boost the competitiveness of European businesses by providing them with the tools to access the entire European market for public services.

The procurement process can be split into several steps: issuing a tender, submitting a bid and awarding the tender. The pilot will focus on both user and administration aspects and in particular result in the realisation of a Virtual Company Dossier (VCD) concept. Once a company has prepared its credentials in the VCD format they will be readable without further modifications by any Member State procurement process. The pilot will also address compatibility and interoperability issues for electronic cataloguing (eCatalogues), electronic ordering (eOrdering) and electronic invoicing (eInvoicing) and the use of electronic signatures (eSignatures) to “seal” the bid.

Nine European countries are investing some €19M in the PEPPOL project with 50% support from the Commission. Austria, Denmark, Finland, France, Germany, Hungary, Italy, as well as Iceland and Norway (coordinator), have formed the PEPPOL consortium to pave the way for more open and transparent public procurement. In addition to these countries the pilot will work with a reference group that enables all Member States, whether inside the consortium or not, to peer-review and follow the decisions and definitions of specifications as they are developed. This, in turn, will smooth the way to a pan-European acceptance of the emerging specifications.

2.3 Ensuring interoperable implementation of the Services Directive

Another activity, that will have a considerable impact on the internal market, is the implementation of the Services Directive 2006/123/EC. The Commission has included a possible further Large Scale Pilot in its 2008 ICT Policy Support Workprogramme. The Directive (Article 8) foresees a “Point of Single Contact” (PoSC) in each Member State, to which any service provider can address itself electronically in order to obtain clearance to provide its services in the targeted Member State. The PoSC will have to deal with procedures and formalities linked to a large variety of service activities. Not only will the PoSCs need to provide information, they will also have to ensure that any service provider, irrespective of size, can easily and fully complete the required procedures and formalities to deliver services in another Member State. The PoSC will have to be able to handle electronic signatures and electronic documents originating from a wide variety of issuing organisations from any Member State. The Directive requires the Commission to facilitate interoperability of the electronic processes, hence the proposal for a Large Scale Pilot using the methodology and cooperation approach developed in the context of eID and e-Procurement.
2.4 Common characteristic of the three pilots

The success of the pilots described above all hinge on the agreement of common specifications amongst the participating public authorities, hence a great deal of detailed innovative technical work will be required both in terms of user-interfaces as well as in back-office and inter-departmental collaborations. Innovation is a key part of the pilots, but at the same time we must also recognise the political significance. The implementation of the pilots needs a strong "top-down" political will and motivation. Alignment of the technical, political and timetables for these pilots presents a unique and important opportunity for Europe.

3. Exchange of good Practices: e-Practice.eu

Innovation is very widespread in the public sector and the experiences and successes deserve to be shared. To this end, in 2007, the Commission launched a new activity specifically designed to support the exchange of good practices. The host website, e-Practice.eu, provides a virtual “agora” and “forum” where ICT professionals from the public and private sectors can “meet”, exchange experiences and discuss on-line examples (good practice cases). e-Practice.eu makes excellent use of the latest Web 2.0 based interfaces and is rapidly becoming (itself) an example of best practice in community building, communication and experience sharing. e-Practice.eu combines on-line activities, such as opinion gathering, critique and review, discussion and consensus building around user-submitted good practice cases. Off-line, physical activities such as workshops and seminars complement the on-line world. Within one year of launching the initiative there are more than 800 good practice cases on-line and the site is now attracting more than 35,000 professional visitors every month. Popularity and growth have been surprisingly quick. As with other Web2.0 style communities, growth is directly linked to perceived added-value on the side of the users.

4. User centricity and burden reduction

So far this article has discussed how the Commission and governments have worked together to foster innovation. The following paragraphs look particularly at innovation in re-design of back-office processes to improve user experience. Statistics reveal that there is a wide variation across Europe in the range of government services on-line as well as a variation in terms of their use. Countries like Austria and Slovenia are frontrunners when it comes to taking user needs into account. However, there is still a long way to go to fully realise a user-centric ambition and all governments are well aware that there is a considerable "gap" between what they currently offer and what their users want and express as a need.

Users are not so much interested in the internal complexities and structures of their governments. They want a personalised service that suits their current needs irrespective of whether provision of the service cuts across traditional internal administrative boundaries, departments, regions or even national borders. Users have sophisticated expectations and their governments should offer services equivalent to commercial offerings except they should be even more robust, reliable and trustworthy than their commercial counterparts.
To realise these expectations governments are looking to simplify and streamline internal processes to simultaneously improve the user experience (e.g. presenting services around life events) and a more efficient bureaucracy. The following three examples show how user-centricity is driving innovation and revitalising a number of core government services.

There is an emerging trend to redesign services based on scenarios of “customer journey mapping”. The UK has experience with this concept and introduced it as a guiding tool to encourage organisations to think as its customers do about what it is like to interact and do business with them. It reveals information on how to shorten the length of processes, thereby improving customer experience and the efficiency of public organisations. The first experience shows that journey mapping is a good instrument to design a seamless, streamlined concept that cuts across government silo-structures and helps to recognise when and where it makes sense to join forces to service “the customer”. It also helps assess performance improvements as the technique tracks time and money spent on implementing a procedure.

A comparable exercise was also undertaken in The Netherlands, where time and money people spend on information obligations was measured. This information was then represented in a “route map” that visualised specific red tape profiles for target groups, such as a single mother, a volunteer or somebody who is chronically ill. The route map shows the separate stops needed to complete an interaction with a public administration. With the richer insights into the red tape target groups encounter, the administrations are better able to plan structural changes to their procedures and to scale back bureaucracy.

Another, novel idea tried out in Portugal resulted in the creation of a network of “Citizen’s Shops” where all public services are presented to citizens in unified points of attendance – realising a one-stop-shop as both a physical and virtual (on-line) service portal.

What can be seen from these examples is that we are experiencing a real paradigm shift in the way that governments present their services. Much more than a simple copy of the previous paperwork processes to an on-line situation, but rather a complete re-think and in many cases redesign of the service provision approach. The results are more personalised, simpler, more intuitive user experience that is closer to the experience of on-line shopping or holidays booking systems. These changes in transaction profiles taken from a user perspective are resulting in a win/win situation for all.

So, how can we make optimal use of users? Up until now this article has focused on how the user can be better served and what steps the European Commission has initiated to stimulate innovation in the transformation of government services. The next step is to exploit continually blurring boundary between users and administrations.

European citizens, especially younger generations, are embracing the web in new ways to build virtual communities and harness the power of mass-collaboration. The phenomenal growth of on-line communities can be a source of inspiration. The web-generation want more and we can easily imagine that that they will want an increasing involvement in policy development and the form in which government services are provided and delivered. Experiments have already started in so-called e-Participation that re-engages citizens in opinion forming and policy development. e-Participation can
lead to a more transparent, accountable public service and in turn lead to an increased trust in government. The phenomenal growth in Web2.0 communities around Flickr, Facebook, Wikipedia and the like is just the beginning of community empowerment and promises to change the way we perceive and interact with political and public services in a dramatic way in the coming decade. At the same time we have to remember that a significant proportion of European citizens are not yet a part of the web-generation and we must continue to strive to ensure that we do not create any new forms of digital divide.

5. Conclusion

Innovation in the public sector needs the right incentives and the right conditions to thrive. The i2010 e-Government Action Plan has helped to enable governments to act together and to set agreed targets to be met by 2010. This article has shown current initiatives and more will follow, especially as we make further progress from supply-driven to demand-driven services. The proliferation of electronic services have to be tempered with actions to ensure the integrity of the single market and this article has provided examples of how governments are working together to ensure that requirement. The article also indicates that there is still much to be done, but we are poised to enter an era where the user will be taking more control over co-piloting his or her interactions with governments and where the boundaries between administrations and users are continuing to blur.

A new chapter is opening for policy makers as they start to use ICT and the user community to develop strategies that are dynamically based on capturing real-time public opinion.

Governments have demonstrated their commitment and have invested heavily in ICT-based solutions both individually and collectively. It is also clear that there is still further potential to exploit the richness and diversity of European ideas to foster innovation in the public sector through the exchange of good practice. All this is being achieved in the spirit of the i2010 initiative and clearly bearing good fruits. It only remains to thank all those involved in this successful collaboration exercise that is bringing the European e-Government agenda to life for the benefit of all citizens, businesses and administrations.

NOTES

2 Capgemini, The User Challenge Benchmarking The Supply Of On-line Public Services 7th Measurement, September 2007
3 http://ec.europa.eu/internal_market/services/services-dir/index_en.htm
5 Capgemini, The User Challenge Benchmarking The Supply Of On-line Public Services 7th Measurement, September 2007
6 Fad or Investment in the Future: An Analysis of the Demand of e-Services in Danish Municipalities Helle Zinner Henriksen Copenhagen Business School, Denmark hzh.inf@cbs.dk
7 www.ePractice.eu
8 www.ePractice.eu
Getting profit from European activities on e-Procurement

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1 Introduction

Public procurement is a key sector of the EU economy accounting for about 16% of GDP. Modernising and opening up procurement markets across borders is crucial to Europe’s competitiveness and for creating new opportunities for businesses. Information technologies can contribute to reduce costs, improve efficiency and remove trade barriers.

The European Union Member States and the European Commission are committed to implement e-Procurement as defined in the i2010 and e-Procurement action plans. However, many actors find difficult to get the right information and sources to profit from this general effort.

This article aims at summarising the current key activities on e-Procurement at European level and at suggesting hints to profit from them.

2 European e-Procurement context

In order to get profit from the European activities in e-Procurement, it is necessary to understand the legal, policy context that drives them.

The directives 2004/17/EC and 2004/18/EC are part of the legal framework aimed at boosting the development and use of electronic procurement. These directives entered into force on 31 January 2006.

The directives base procurement on the principles of non-discrimination, transparency, and fair competition. The directives take into account the importance of technology, but they are technology neutral.

The directives allow to the public administrations the possibility to use exclusively electronic procedures. In addition, they define two new procedures, specifically conceived to be carried out by electronic means:

- DPS (Dynamic purchasing system), a sort of electronic market place.
- Electronic auctions

In addition to the above-mentioned new directives, two existing directives are also relevant in the context of electronic public procurement:

- Directive 2001/115/EC for electronic invoices, and
In order to implement this legal framework, the Commission presented in 2004 the **e-Procurement action plan**. This action plan defines objectives and activities in the period 2005-2007, based on three axes:

- Ensure a well functioning Internal Market when public procurement is conducted electronically;
- Achieve greater efficiency in procurement and improve governance;
- Work towards an international framework for electronic public procurement.

Most Commission e-Procurement actions are linked to this action plan. Additionally, the action plan proposes activities regarding member states, the international context and the standardisation bodies.

The e-Procurement action plan is also considered in the **i2010 eGovernment action plan**. This plan is mainly inspired by the Manchester ministerial declaration of 24 November 2005, which provides the political boost to eGovernment until 2010.

In the field of e-Procurement, the ministers proposed ambitious objectives:

- All public administrations across Europe will have the capability of carrying out 100% of their procurement electronically, where legally permissible;
- At least 50% of public procurement above the EU public procurement threshold will be carried out electronically.

Following these principles, the i2010 eGovernment action plan focuses on five major objectives for eGovernment with specific goals for 2010. Three of them are related to e-Procurement:

- Implementing high-impact key services for citizens and businesses: by 2010, 100% of public procurement will be available electronically, with 50% actual usage, with agreement on cooperation on further high-impact online citizen services;
- Making efficiency and effectiveness a reality: significantly contributing to high user satisfaction, transparency and accountability, a lighter administrative burden and efficiency gains;
- Putting key enablers in place: enabling citizens and businesses to benefit from convenient, secure and interoperable authenticated access across Europe to public services.

### 3 Profiting from European activities

Any actor involved in the implementation of e-Procurement can profit from the European activities in the field.

The Commission provides guidance, funding and exchange opportunities. In addition, there are ready-to-use technical solutions and standards for implementing e-Procurement.

#### 3.1 Guidance, tools and services

The Commission has developed guidelines and tools to help administrations, IT editors and business to adapt their systems to the e-Procurement directives. All these guidelines and tools are available at [http://ec.europa.eu/idabc/eprocurement](http://ec.europa.eu/idabc/eprocurement).

Firstly, the Commission has produced **Functional Requirements**. They summarise technical elements to take into account when implementing e-Procurement systems.
The functional requirements are intended for application developers and managers. A more technical set of documents are the Data Models. They are technical models to built systems exchanging messages to implement eInvoicing, eOrdering, eTendering and eAwarding. The target users are the standardisation bodies and application developers.

The learning demonstrators are simulators of e-Procurement applications based on the functional requirements that give a visual example of a partial implementation of a real system. They are technical tools but can easily be understood by non-technicians. For instance, they have been used for presentations to managers and lectures at the university.

Two implementations are available:
- The dynamic demonstrators are applications that have to be installed in a PC. They include a database to allow full interaction.
- The static demonstrators include just the basic functionality to show the most common uses.

The demonstrators and its sources are downloadable at the IDABC web site. The static demonstrators can also be browsed directly at the IDABC web site. In addition, a CD-ROM with the demonstrators and all the remaining documentation can be requested.

Finally, the Publications Office in cooperation with the DG Internal Market and Services offer services for publication of notices. The information is available at http://ted.europa.eu/ (TED: Supplement to the Official Journal of the European Union) and http://simap.europa.eu/ (SIMAP: Système d'Information pour les Marchés Publics).

3.2 Funding opportunities

We can consider three main sources of funding related to e-Procurement.

1.- IDABC programme

The IDABC programme (http://ec.europa.eu/idabc) funds eGovernment projects according to its legal base (Decision 2004/387/EC). However, the programme gives no subventions and therefore cannot help private investors.

IDABC funds 100% of the projects (studies, applications, etc) listed in its work programme. The projects are proposed and run by the Commission, taking into account suggestions and comments by the member states.

The results are freely available for any interested party.

2.- Standardisation bodies

CEN and other specific standardisation bodies get regularly subventions from the European Commission for standardisation activities. CEN/ISSS is the IT branch of CEN and carries out several activities in the field of eInvoices, eCatalogues, etc.

CEN/ISSS submits proposals in line with general EU needs and, if approved, organise projects to produce guidelines, recommendations, etc.
Both private and public organisations can participate at the workshops to develop recommendations.

3.- Competitiveness and innovation framework programme (CIP)

The Competitiveness and Innovation framework Programme (CIP) runs for the years 2007-2013 and is organised around three multi-annual specific programmes:

- The Entrepreneurship and Innovation Programme (EIP).
- The Intelligent Energy Europe Programme (IEE).
- The Information and Communication Technologies Policy Support Programme (ICT PSP).


The ICT PSP counts on a budget of 730 million €. As result of the 2007 call for proposals, several Member States have created PEPPOL, a consortium to implement a high-impact pilot in the field of e-Procurement. The goal of this pilot is to identify barriers to interoperability in cross-border procurement and to suggest solutions to solve them.

New calls will be launched in the coming years. At the moment of writing this article, the conditions of these calls have not been published. However, some common principles tend to be present in most grant-based Commission programmes:

- Subventions are given to consortia with public and private partners.
- At least four different countries represented in the consortium.
- The consortia submit their proposals when the calls are launched (often yearly).
- The subventions are always limited (normally up to 50%).

3.3 Standardisation

There are three main actors concerning e-Procurement standardisation:

- UN/CEFACT is a United Nations body for facilitating the creation of international standards.
- CEN/ISSS. CEN is one of the officially recognised organisations for establishing standards in Europe. CEN is also the entry point to UN/CEFACT in Europe.
- OASIS is a non-profit organisation for the development of IT standards. OASIS has cooperated with UN/CEFACT especially in the context of ebXML, a standard for eBusiness exchanges. OASIS has also defined UBL, a standard for eInvoices and eOrders.

A group particularly active in the OASIS context is the Northern European UBL initiative. The group is lead by Denmark and includes the Scandinavian countries and the United Kingdom. Their goal is to use UBL for implementing eInvoices, eOrders and eCatalogues in the public administration.

Building in the work of this group, the CEN/ISSS has launched the CEN/BII project, in an effort to converge existing e-Procurement specifications into a unified standard under UN/CEFACT.
3.4 Exchange opportunities: the e-Procurement Forum

The e-Procurement Forum (http://epractice.eu/community/eprocurement) is an initiative sponsored by the European Commission to help all the practitioners in public electronic procurement in Europe to meet and share their experiences and knowledge, and to ask and provide support.

The forum is implemented as an epractice community. The community is open to practitioners from European administrations, from public and private organisations, from academia and research centres.

The e-Procurement Forum is an open space to express opinions and exchange knowledge where members are encouraged to provide contributions and participate in the discussions and events. It is not an official Commission site and it's mainly focused on technical and organisational aspects of e-Procurement.

In practice, the forum is:
- A knowledge database with a large catalogue of e-Procurement projects and a library of guidelines and specifications, including all European Commission guidelines.
- An exchange platform for both online and face-to-face discussion.

The list of services offered includes:
- A catalogue of case studies based on real e-Procurement projects.
- A library of key documents.
- Daily news on eProcurement and other eGovernment topics.
- A complete calendar of events in Europe.
- Workshops organized either by the forum or associated parties.
- An blog for online discussion.

The forum uses advanced web 2.0 facilities such as a TV, ratings, comments, voting, etc. Currently, around 300 professionals have joined the forum.

4 Conclusions

Public e-Procurement implies opportunities and challenges to European administrations and companies.

The European Union has fixed ambitious objectives by 2010: 100% electronic availability and 50% real use for procurement procedures above the legal thresholds.

In the legal side, two new directives have entered into force giving a uniform legislative framework all over Europe.

To support this legal framework there are guidelines, tools and services that help administrations, business and consultants to develop compliant systems.

Any actor can get profit from these activities for implementing its own e-Procurement system.
HELP.gv.at the inclusive Austrian public administration platform

Christian Rupp,
Spokesperson of the Federal Platform Digital Austria in the Austrian Federal Chancellery

Just as eInclusion must be seen simply as a means to the end of increased societal inclusion, so inclusive e-Government must be seen as the supply and use of e-Government services which support the ultimate goal of a more inclusive society, and not as an end in itself. In the e-Government Action Plan inclusive e-Government is one of the five major objectives for e-Government which recognises the role of ICT-enabled public services to help consolidate social cohesion and ensure that disadvantaged people face fewer barriers to opportunities.

In Austria all public administration internet sites must be compatible with WCAG 1.0 guidelines (Level A) by January 1, 2008. Styleguide 2.0 is used as standard for online forms to facilitate user navigation and ensure conformity with Level A of WAI guidelines.

The leading inclusive e-Government example is the central Governmental portal www.help.gv.at which provides a ‘one-stop-shop’ and complies with level AAA of the WAI guidelines in order to make the site accessible to the widest range of persons possible. This means also blind people can hear the webcontent with a screenreader or use electronic forms. In December 2006 HELP.gv.at received the BIENE 2006 in Gold for the best barrier free and best accessible German language information portal (www.biene-award.de/award/)
Launched in 1997 as a guide to all Austrian authorities, offices and institutions, HELP.gv.at has been continuously enhanced to become the leading e-Government portal in Europe. In July 2003 HELP.gv.at received the eEurope Award for the best e-Government portal in Europe (www.e-europeawards.org).

HELP.gv.at is an Internet portal designed to guide users through administrative procedures, so as to be able to prepare and complete them quickly and without difficulties. The portal is tailored to target group needs, being designed around different 'life situations' like birth, marriage, passports, death, rather than around administrative structures. The number of life situations has increased from 15 (1998) to nearly 200. New life situations are included into HELP.gv.at on an ongoing basis, so HELP.gv.at is the single point of entry to detailed information about public services and administrative procedures. To ensure that every target group immediately finds what it is looking for, the relevant information is shown separately.

An online forum HELP.gv.at enables citizens to submit enquiries or suggestions, and a special service is provided for some specific groups (entrepreneurs, people with disabilities, foreigners living and working in Austria, etc.). Beyond providing information, the portal also enables citizens to download official administrative forms and to conduct an increasing number of procedures online. A service called 'Official Procedures Online' (Amtsweg on-line) has been developed, enabling the delivery of interactive and transactional services.

In November 2007, HELP enriched the services offered, by launching a new section for young people, having a dedicated homepage and providing onward links to sites and downloads that are likely to interest young users. Four main subjects are covered: work, education and training, leisure and mobility, and rights and democracy. The pages on work, for instance, start with the basics: what is a job and why is it a good thing to have one? They go on to give practical advice for job-seekers. An on-line 'application coach' explains step-by-step how to write a well-presented job application and a CV. Similarly, those opting for an apprenticeship will find advice on choosing skills that will suit them and which open up good future prospects. And if unemployment looms nonetheless,
there are links to coaching and job-placement services as well as to details of benefits and allowances.

Teenagers who want to ride a moped or a quad can find out how to get a permit. Those aiming for a full driving licence can learn how to start working towards it from the age of 16. A ‘youth rights’ page gives details of youth protection laws and other rights and duties affecting young people – for instance, at what age they can conclude valid contracts and when they need their parents’ agreement. The site also has an interactive element. Young users can send in their reactions and suggestions anonymously.

The Help-Business area supports the business community, both giving simple descriptions of the required interactions with authorities and supplying factual information. The information and useful hints provided cover various business activities such as starting a business, taxation matters and entering an enterprise in the register of companies. The special start-up schedule service offers comprehensive information on the founding of new enterprises while instructions for obtaining grants or subsidies and a series of forms are available for download.

Austria is also running with HELP.gv.at the first administrative advice office in Second Life, the on-line ‘virtual’ society. The idea is to bridge the gap between on-line information and the personalised service available in town halls. An avatar called Sizzi Winkler is on hand to guide the visitors.
The Austrian-wide project Multimedia-Stations offers public access to all up-to-date communication and information services and therefore covers several demands of the modern information society. In general there are three needs that converge and are satisfied in this project:

- the decline of the public telephony and therefore a need for re-structuring the public payphone services;
- necessity re-designed outdated telephone booths;
- free access to public internet services for all citizens, independent of their education level or infrastructure at home.

In the last years nearly 2000 Multimedia-Stations were implemented.

The growing number of visitors of HELP.gv.at indicates that this website is increasingly used by citizens to prepare and transact official procedures. Due to the continuous further development of the section "Help in new life situations" and the widening of the range of services e.g. Glossary from A-Z, the number of user accesses per month has increased by more than ten times since the online service has been launched in 1997. The number of user sessions rose from 19,778 monthly in January 1999 to a remarkable 450,000 in January 2008.

HELP.gv.at has embarked on a highly successful path based on the e-Government principles: information, communication and transaction.
• **One-stop principle**
HELP.gv.at is a central point of access to public administration. It offers single access to administrative procedures and, as an interface between local authorities, covers 14 federal ministries, 9 federal provinces, 80 local authorities and 2,357 municipalities.

• **Correct and up-to-date information**
HELP.gv.at describes administrative procedures in a user-friendly way. Information is updated regularly and amended according to legal and social developments and changes. New legal provisions are incorporated into the existing texts by a team of editors cooperating with staff from the federal ministries. The good cooperation at all administrative levels, and with decision-makers from the business sector, facilitates the fast exchange of stable and reliable information.

• **Online transactions**
HELP.gv.at has been constantly enhanced to offer not only information but also the possibilities of a full transaction portal. Thus an increasing number of administrative proceedings can be processed completely electronically through the portal. Furthermore HELP.gv.at took an early note on the developments concerning the secure processing of administrative procedures through electronic signatures (such as applications for a birth certificate or a business licence) which can be solved using the Austrian electronic citizen card.

• **Developing online procedures**
HELP.gv.at supports all participating partners (i.e. authorities at federal, provincial and municipal level) in developing online procedures. Thus, HELP not only provides support to citizens seeking advice, but also acts as a motor for administrative developments in Austria. The continual expansion of online transactions accelerates the broad dissemination of e-Government measures, so HELP strongly contributes to the development of a virtual office in Austria.

• **Dialogue with citizens**
Citizens may ask questions in a discussion forum and quickly receive an answer. By implementing innovations and amendments, users’ wishes are taken into account and HELP’s services are continually improved.

• **Accessibility**
User-friendliness and barrier-free operability are imperative in order to make information and services accessible to as many people as possible. Supported by experts on web design suitable for disabled people, HELP has been designed in accordance with the WAI-AAA accessibility guidelines.

HELP.gv.at was continuously developed further into a transactional portal interconnected with regional and local government systems. Content sharing and electronic forms are for free for the municipalities.

In Austria the implementation of e-Government is organised in a cooperative way. The Federal Platform Digital Austria is the strategic unit of the Austrian government and involves all national and local governments as well as various stakeholder form chamber organisations and the industry.

HELP.gv.at the inclusive Austrian public administration platform
The core task of e-Government is 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.

NOTES
Integrative Platforms for e-Government: the Challenges

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Abstract

Integrative platforms are indispensable for e-Government applications. The contribution deals with some cluster of demands. Joining up administrations, having interoperability and identity management is a must. Other considerations concern better service and usage. Platforms have to enable collaborative work modes – between and within administrations and also with citizens. Further on platforms should support e-Participation.

Integrative Platforms are Demanded

The conference has three topics on the agenda and one concerns integrated e-Government platform. This objective is chosen as integrative platforms open new perspectives and gives opportunities. Considerations have to start with taking a holistic approach. This means integrating several aspects: users, technology, organisation, law, knowledge, culture, society and politics. Next the machinery of governing is regarded: providing administrative services, running work processes, and modes of cooperative work have to be defined in a new way. Then redesign efforts come in - public services, processes, cooperation and knowledge management. For all these changes a sound engineering approach is essential. This is a broad claim so let us mention just some key requests: building a secure and reliable infrastructure, developing standards, designing adequate interface. Competent change management has to follow. From all these points here the focus will go to challenges posed by integrative platforms.

Distinctive Requests concerning e-Government

Demands for platforms arise everywhere – in commerce, administration, health, and learning. But it has to be stated: mere replicating commercial concepts systems will not suffice, as platforms have to cope with distinctiveness of the application field. As illustration some demarcations of the governmental realm are shortly outlined:

- An extraordinarily complex goal structure distinguishes the public sector from private business.
- Legal norms are a standard vehicle of communication; yet they have to be supplemented by legal interpretation, negotiation and consensus building.
- Legal norms give particular meaning to administrative structures posing several limitations on process reengineering (protecting privacy, safeguarding legality etc.).
- Public Administration mostly works via a complex tissue of cooperation involving quite many acting entities (which is quite contrary to the private sector).
- An e-identity is needed in nearly all administrative transactions.

A lot of challenges are ahead when building integrative platforms. Here is a listing of those to be dealt with in the following sections:
• Putting in a framework.
• Joining up administrations.
• Promoting interoperability.
• Identity management.
• Offering better services.
• Administrative collaboration.
• Advising citizens.
• Increasing usage.
• Knowledge enhancement.
• Supporting e-Participation.

At the end of the introductory section a remark. Considering the vast size of literature on e-Government paradigmatically two series are cited: the official EU publications on the e-Europe Awards ([1], [2]); the annual European Conference Series EGOV (last five years: [3], [4], [5], [6] and [7]).

Putting in a Framework

Developing a proper strategic framework together with a well-defined and realistic set of goals and criteria is important. It is a pre-requisite for ensuring that the right objectives are reached in response to real demands. This will allow a realistic assessment of costs and benefits and prioritised development that relies on cost/benefit considerations.

Important framing conditions are given from outside. On the national level there exist e-Government Directives and Master plans. On the international level the EC sets the posts; so under the name “Accelerating e-Government in Europe for the Benefit of All” the i2010 Government Action Plan was developed [8]. The objectives comprise five points:
• No citizen left behind: advancing inclusion through e-Government so that by 2010 all citizens benefit from trusted, innovative services and easy access for all;
• Making efficiency and effectiveness a reality – significantly contributing, by 2010, to high user satisfaction, transparency and accountability, a lighter administrative burden and efficiency gains;
• Implementing high-impact key services for citizens and businesses - by 2010, 100% of public procurement will be available electronically, with 50% actual usage, with agreement on cooperation on further high-impact online citizen services;
• Putting key enablers in place - enabling citizens and businesses to benefit, by 2010, from convenient, secure and interoperable authenticated access across Europe to public services;
• Strengthening participation and democratic decision-making - demonstrating, by 2010, tools for effective public debate and participation in democratic decision-making.

Joining up Administrations

The success of e-Government depends on its central claim, namely providing On-line one-stop Government. This means having a unique access point to many public services. Processes in Government are very particular; often they cut across different government levels – local, regional or national - and different types of agencies. Thus,
cooperation has to join up different branches and levels needing close and pertinent contact among all actors involved. Service Delivery is the immediate perspective for the citizen – yet - turning to an inside view - integration is needed. Back-office means the internal part of processes and workflows and middleware is used to link the front and back offices.

The core complexity of On-line one-stop Government is illustrated on hand of an example, the life situation of civil marriage. A lot of transactions and number of repositories are involved - data are brought together from diverse data sources and disseminated to several repositories. Just regarding civil marriage as an example: before the legal event documents located in different agencies have to be checked; afterwards many updates on documents have to be made (in the example change of name, civil status, common domicile etc.). In the conventional way citizens have to bring along all documents; in the future thanks to Online One stop Government that will be different: “Data will run, and not the citizens.” That needs joining up agencies – and in some cases even cross border.

**Improving Interoperability**

Realising the idea of a joined up government heavily depends on one point: achieving interoperability. Interoperability is defined as “the ability of ICT systems and the processes they support to exchange data and to enable sharing of information and knowledge.”

The European Interoperability Framework has the following distinctions:

- Technical interoperability covers the technical issues of linking computer systems and services.
- Semantic interoperability ensures that the precise meaning of exchanged information is understandable by other applications. Semantic modelling allows a global use of data that were locally collected. Various approaches exist mostly based on XML, a meta-language for the description of data and documents. It is amended with RDF that adds a minimum set of semantic structures.
- Organizational interoperability is concerned with business processes and cooperation of agencies. Here the requirements of decentralized agencies have to meet the central needs on coordination. It also includes governance of interoperability covering political, legal and structural conditions.

At present interoperability is far from being satisfactory. Improvements have to deal with the following features:

- Working on matters of semantics and metadata. Modelling semantic with more complex descriptions such as ontologies is in demand. Innovative solutions may involve activities such as promoting a common terminology and developing communities of practice.
- A higher degree of formalisation is looked-for. There exists a rich kit of methods and tools: taxonomies, semantic nets, semantic data models, hyper links, time models and process graphs.
- Often legal terms are not adequately defined. This is due to several reasons: vagueness that may be on purpose, genuine inconsistencies and fuzziness, dynamics in law, planned discretionary power of street level bureaucrats etc.
More and more interoperability has to cope with cross-border problems because the number of responsibilities increases which reach beyond local, regional or national boundaries. New problems arise and three examples may illustrate the difficulties in proper semantic translation. Sometimes the question is to find adequate meaning of terms, so for taking licenses, certificates and academic degrees. Also different connotations of terms may occur as it is in the case of lawyer and barrister. Even counterparts may not exist as to mention titles and awards.

Identity Management

Main goal of security is to protect systems from failure and from unauthorized access as well as to maintain continuity in event of failure. The subject is broad ranging from analyzing risks and threats to security management. Data security has three basic demands namely confidentiality, integrity and availability of data. In administrations caring for security is an ongoing task. Efforts concern spotting critical systems and applications, analysing risks and identifying measures as well as having checks and audits. More and more, user and technology trends will push towards the emergence of trusted mobility applications.

In the context of security identity management becomes a special enabler. Generally, in administrative matters an e-identity is needed in nearly all transactions. One small example may illustrate the sensitivity of the public sector: In e-Commerce having a 2 % loss by bouncing cheques may be tolerable as long as the cost-schema can be adapted by setting higher prices; in e-Government this is opposite. No administrations would ever tolerate issuing a 2 % rate of wrong passports.

Currently, in most applications identity management is bases on cards and passwords; yet digital signatures are on the rise. In principle, signatures are data linked to other data for the purpose of proving authenticity of message and sender. There are four types of signatures used in ICT: simple digital signature; advanced digital signature; qualified digital signature; qualified digital signature with certification of a proved trust centre. A qualified digital signature has a qualified certificate and a secure method of transmission; so it is EU minimum standard and is so legally recognized as substitute of manual signatures.

Offering Better Services

Development of services has come in waves. In every country a similar pattern evolved: offering access, providing services online, automating processes, reengineering of processes. Regarding the status quo one sees a big variety; well covered areas and wide fields open for improvements.

Only few services such as taxation and social welfare are quite well run everywhere. At the decentralised level one can find some quite successful initiatives (such as in education and health) but not much in the broad. Even within a specific application area special patterns may occur. One may find a high ICT-level in administrative matters, yet void in core activities. Law is a good example for such an uneven development.
Taking the example of law one sees a quite impressive office and communication part. Here one can cite e-Law in Austria where a total “paperless” form of lawmaking is achieved. Quite different is the picture in the central part, the core part of legal work. Surely there was the hay days of legal expert systems research when many pilot projects covered various approaches: ranging decisions support systems and configuration of legal documents to methodical issues such as non monotonic reasoning and neuronal nets. But to speak frankly – nearly none of the pilots made it to become rooted in practice.

**Advising Citizens**

Informing and advising citizens is a core part of an integrated service in Online One stop Government. Several organisational forms are possible and many particular functions appear. Organisational solutions range from kiosks, to municipal neighbourhood offices to mobile connections. The particular functions are manifold and so closer regard is appropriate, how citizen contact agencies for advice. The concrete situation is so that diverse demands have to be resolved:

- help for filling in forms may be in demand;
- there may occur a need for an in-depth explanation;
- the citizen’s requests are posed in a rather urgent situation;
- the interaction is complicated as the everyday-world has to be in a legal-administrative jargon (and vice versa);
- the explanatory capabilities of the system are limited;
- information pieces from different sources have to be combined.

For the case giving of advice to citizens several improvements are viable. One would construct clarifying dialogues, and describe illustrative scenarios. Also detailed knowledge (on both, on the field in question and on the interaction) can be embodied in software agents. Multimedia technology may be also used. This entire work means actively helping users in accomplishing their tasks. Here a small annotation may be adequate. Citizen advice is not a one way road. Complaint management as well as the collection of responses provide valuable feedback for improving administrations.

**Collaboration within and between Administrations**

Surely in administrations strict cooperation dominates; using workflow for sending record is prevalent. But collaboration as a less formalized way of communication gains in importance. The basic paradigm for collaboration is not coordination in the sense of sequencing, but communication. Collaboration means working together as a group, understanding the subtasks of other members, and sharing the data. Typical modes of collaborative work are negotiation, consensus finding, and planning. For the higher ranks of bureaucrats such mode of work becomes prevalent.

Computer-mediated collaboration needs sophisticated tools and often the use of multi media. To give a flavour of the capabilities two illustrations are added. The first concerns meetings which are a particular good example for collaborative work. Many occurring activities are collaborative in nature and claim for IT-support - so the meeting activity per se may be performed via video techniques – so economizing on travel costs and time.
In addition, many activities associated with meetings can be largely improved by tools: clarifying procedural questions; scheduling of meetings and implied sub-activities; supporting the agenda setting and spotting experts, supporting brainstorming sessions, structuring issues etc. Then a second example is given for the use of multi media – remote agencies. Imagine difficult questions arise in connection with the production or the delivery of services. The remote agency can contact experts in the back-office for competent answers.

Collaboration does not only occur in intra-governmental activities, some cases may need negotiating with citizens as well. Just to note down building permits as an example. So in the following sections on citizen advice, usage and participation a collaborative work mode may be involved as well.

**Increasing Usage**

Low user take-up of e-Services is a main problem. For the user the culprit is clear: inadequate usability. Surely, in terms of user-friendliness several application systems are far off from being satisfactory. Long is the list of complaints: a general lack in targeting the audience; an inadequate and inconsistent design; lacking of comments and adequate examples; a sloppiness in maintenance etc.

But, discontent has become a starting point for improvements. So last years’ development has showed some progress:

- Very important - multi-channels usage has considerably increased. So four fifth of the user use the systems in self-service mode.
- Further progress shown is found in sound design that complies with basic criteria for usability: functionality, robustness, self-description and conformity to expectations.
- Not to forget - often significant improvements were achieved by simple means, e.g. providing better comments, clearer scenarios or additional help-functions.
- Customising access to special user groups. So multi-lingual portals are progressing for Pan-European services. For handicapped people the creation barrier free systems is under way in whole Europe.

Despite recent improvements – visionary progress is still on the horizon. Here a sketch of an advanced solution using multimedia. A citizen may go to mediating persons at the counter of public one-stop-service shops. The mediators will use the system with its diverse repositories. In case the issue is too complex it is possible to invoke further expertise from distant experts via a multimedia link.

**Knowledge Enhancement**

The role of knowledge becomes dominant. Just as to cite Bill Gates at the World Economic Forum 2006 in Davos: “It is hard to say exactly when it happened but at some point in the last 20 years the word knowledge became an adjective.” This statement gives an idea about how ubiquitous and urgent the focus on knowledge and information has become.

Prospects for knowledge management in Government are remarkable from the point of demand: nearly all administrative tasks are informational in nature, decision making is a
public official's daily work, and for any agency its particular domain knowledge is an asset of key importance. Such a new direction will engender considerable progress. Knowledge management has two further tasks: handling information overload and information quality. The first means struggling with growth, the second means safeguarding the adequacy, accuracy and sufficiency of the information provided. Constantly information flows in from many sources and both tasks grow in importance. The economy, administrations as well as individuals require accurate and reliable and appropriate information.

From the many aspects that emerge we turn to some facets connected with integrative platforms:

• Building a modern administration with novel patterns of cooperation is tantamount to changing the distribution of knowledge. Redistribution of knowledge has to be designed and orchestrated carefully.
• Eventually, a better management of knowledge will lead to forms of “smart government”. Knowledge derived from previous action or gained through policy evaluation will be fed back to policymaking. Also building a repository of process knowledge for novices is an example.
• Better usability by knowledge enhancement of interaction is another point. Several projects use ontologies for the supporting user navigation. A long-term goal is translating the demand for a service from real life into the administrative language.

One has to admit – progress is slow. This may change as more technical means become available: conventional databases, advanced forms of repositories using knowledge ontology, knowledge cartographies, software agents, avatars, etc.

Supporting e-Participation

Government has to support the formation of a democratic culture. Thus e-Participation develops and implements new forms of participation the communication should involve citizens, public authorities, elected representatives etc. One challenge is the perceived democratic deficit requiring new relationships between state and citizens. Public responsiveness should be improved, one wants to reconnect citizens with politics and policy making. Then, given the complexity of decision making and legislation knowledge and expertise of citizens should be tapped in a well.

The foci of e-Participation have changed. So e-Participation started with interest in e-Voting and transparency. There were several projects using the web for voting. But most projects ran without digital signature and were often directed to rather special groups. Further interest was put on transparency. There is a close connection between transparency and participation in the form a mutual promotion.

In recent years some new foci have come in. Several projects show a direct ways to the top, so in the UK and in Estonia. One example is e-Petition which gives communication to the Prime Ministers Office. Active participation is a further item, so supporting all forms of community development. A particular point is the use of Web 2.0. This means not only usage of new technological developments; more it stand for an evolution of a different physical and a new virtual world. Web 2.0 applications generate a fan of possibilities.
Outlook: Benefits from Innovation

Integrated platforms imply considerable progress for all: administrations, citizens and enterprises. Government has a greater variety of ways to conduct public affairs and the delivery of services will improve. Both administrations and enterprise will increase efficiency. For the citizens services become more sophisticated and more efficient. Their participation and direct engagement in public activities will increase.
References


New Public Management and eGovernment: Like father like son?
New Public Management and eGovernment: family or rivals?

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Abstract

In government practice, Electronic Government (eGov) was conceived under the New Public Management (NPM) regime and has been seen as the perhaps most effective implementation tool. However, there are many features of NPM that inhibit, in fact make virtually impossible, the possibilities to reap the benefits promised by eGov. eGov value is supposed to come as (1) administrative rationalization, in particular government reorganization and integration across and among government agencies, and (2) added value for citizens due to more openness and better integrated and hence quicker and more transparent services. Values of eGov are hence mainly conceived at system – whole-of-government – level. This is in contradiction to NPM which measures value at the level of individual agencies, and mainly in strictly economic terms. This paper discusses the relation between eGov and NPM by means of comparison using two illustrative cases and examples of proposed remedies to counteract the negative effects of NPM. The paper concludes that from the viewpoint of achieving eGov goals NPM is generally conserving organizations, reducing not only incentives for cooperation but also failing to measure system benefits, in terms of government efficiency as well as effectiveness.

Introduction

Electronic Government (eGov) is typically defined as a positive development concerning 3 main actors; government administrations; users of government services, i.e. citizens and companies; and the political system due to “better democracy” typically meaning more openness (Gore, 1993; Grant & Chau, 2005, Grönlund, 2002; 2005; OECD, 2003; UN, 2004; UNDESA, 2003). Also practitioner eGov definitions across the globe unanimously point to these three things, more efficient operations, better services and better democracy. An example is the EU definition:

e-Government is the use of Information and Communication Technologies in public administrations combined with organisational change and new skills in order to improve public services and democratic processes [EU, 2004, italics by the author]

There are many other definitions. For the purpose of easy measurability, researchers often use more narrow definitions such as “electronic services from government”, sometimes even more narrow like simply measuring what is there on national web sites (e.g.West, 2003; DGIM, 2005; Accenture 2004; 2005).
It is generally agreed that (1) cost reductions in public sectors are necessary as taxes cannot be raised much further, (2) at the same time both governments, companies and citizens require better services, (3) costs for the ICT parts of eGov must therefore be paid for by (larger) gains that can only come from more efficient processes, which in most cases means reorganization, and (4) in many cases reorganizations can be done within existing department structure but often it must be done across departments. In industrialized countries the strategic government approach to catering for such changes is what is in academia called New Public Management, which in brief is a business style incentive model. Within this model, eGov is not a project but a management tool. In brief summary, eGov can be described in terms of goals, means and measures as in Table 1.

<table>
<thead>
<tr>
<th>Goals</th>
<th>Means</th>
<th>Measures/indicators (examples)</th>
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<tr>
<td>More efficient administration</td>
<td>process redesign</td>
<td>Process efficiency, cost reductions</td>
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<td>organizational change</td>
<td>Organization for effectiveness, efficient government management,</td>
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<td>Enterprise architectures</td>
<td>less corruption</td>
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<td>Transforming relations with other arms of</td>
<td>Degree of interoperability</td>
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<td>government</td>
<td>Reduction of obstacles to interoperability</td>
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<td>Better services to citizens</td>
<td>Integration of many media in service</td>
<td>Number of services online</td>
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<td>and companies</td>
<td>interactions; websites, call centers,</td>
<td>Completeness of services online</td>
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<td></td>
<td>personal service online, over phone or on</td>
<td>Response times</td>
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<td>site, alerts, subscription services, etc.</td>
<td>User satisfaction</td>
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<td>Transparency, improved</td>
<td>Better access to information transform</td>
<td>Citizen empowerment</td>
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<tr>
<td>democracy</td>
<td>relations with citizens and businesses</td>
<td>Greater convenience</td>
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</tbody>
</table>

Table 1: eGov goals, means and measures.

e-Government is closely related to government performance, and is hence a strategic perspective, not merely an operational. Government performance is conceived in terms of both efficiency and effectiveness, e.g. cost reductions for government agencies as well as citizen empowerment and satisfaction.

The basic question motivating this research is, “how can eGovernment best be strategically managed?” The question is motivated by current gaps found in both practice and research. As for practice, there are generally acknowledged problems in achieving system-level benefits from eGovernment, in implementing it at local level as well as in small government units. Integration does not happen as hoped. As for research, there is a tendency that researchers focus on operational issues such as project management, web site contents, implementation and such, hence ignoring strategic issues at system level. Problems are found, tools are devised, but system level organizational issues pertaining to governance in the public sector are largely ignored. eGov researchers seem to avoid the public sector complexities, and political scientists largely avoid discussing eGov (Grönlund 2005). This paper addresses this complicated question in a first small step by comparing eGovernment with NPM, the predominating governance model in the industrialized world.
The remainder of this paper is organized as follows. After some brief methodological remarks in Section 2, Section 3 introduces NPM and discusses the relation between NPM and eGov by means of data from a case study. Section 4 presents another case which is more elaborately described so as to illustrate the problems in the practice of strategic eGov-enabled change under the NPM regime. Section 5 presents and discusses some of the remedies proposed to NPM so as to make it more conducive to whole-system benefits and hence more suitable for eGov. Finally Section 6 discusses the implication of the eGov-NPM comparison.

Research question and method

The basic question motivating this research is, “how can eGovernment best be strategically managed?” This is clearly a complicated question which here is addressed by means of a first step, namely comparing eGovernment with NPM, the predominating governance model in the industrialized world. This paper presents some information from two case studies, but the main purpose is to discuss strategic paradigms in managing the public sector. This is commonly known as governance. The underlying idea is to better understand the implications of eGovernment in terms of requirements for public sector strategy. The method used is analytical comparison between NPM and eGov concerning performance measurements, tools and incentives. Data from the cases, collected from public documents produced by the organizations studied, are presented merely as illustrations of the general comparative analysis.

New Public Management

New Public Management (NPM) is a management philosophy used by governments since the 1980s to modernize the public sector. In practice NPM New Public management is a broad and very complex term used to describe the wave of public sector reforms throughout the world since the 1980s. While the actual term was coined in academia in the early 1990s the role model, using both the theories and the practices but not the term, is the Thatcher government in the UK in the 1980s. By now most governments in industrialized countries have followed, more or less, in practice if not always in rhetoric. Theoretically NPM is based on public choice and managerial schools of thought. NPM seeks to enhance the efficiency of the public sector and governments’ control over it. NPM assumes that more market orientation in the public sector will lead to greater cost-efficiency for governments, without having negative side effects on other objectives and considerations that “(OPM) public management” — detailed regulation based on political goals — could achieve. Keywords in NPM include market, competition, breaking up large bureaucracies into business-like cost units, efficiency, economic measures, customer (rather than citizen), efficiency.

Clearly NPM has many critics, who typically point to the differences between the public and the private sectors and show that NPM tends to ignore these differences (e.g. Boston et al, 1996).

Academics have claimed that NPM has its best years behind (e.g. Hughes & Owen, 2003), and that other forms of government are appearing. Such forms are claimed to have to do with emerging practices of governments networking, federalism, new active relations
with citizens, etc., but also with issues that have been found lost in NPM such as politics, whole-system thinking, and person-centeredness (back to citizen rather than customer). “Digital Era Governance” is one candidate (Dunleavy et al, 2007). However, so far NPM remains the preferred management strategy in practice in developed countries.

NPM and eGovernment

In the industrialized world, governed NPM style, eGov is no longer a project. It is part of daily operations and it is a tool for rationalization, not development in sense of the World Bank definition above) sense of that word. This is not just, or even mainly, due to the fact that ICT systems and services over the web are so commonplace. It is even more because the NPM style of government makes each government agency think of itself as a business. They are regulated by goals and budgets. Budgets are cut to enforce efficiency, and ICT is used to deliver wherever cost-effective. The following example is from the Annual Report for the Swedish Student Loan Agency (CSN) and it illuminates NPM and eGov in a nutshell.

CSN is a big business distributing loans to most Swedish students since some four decades. Currently about 20 % of the population have loans with CSN. In the 1990s, CSN had a crisis. Processing applications took months. Students got their loans months into the semester rather than at the start of it which for many made the first half of the semester unexpectedly low-budget. Incoming calls drenched the switchboard; response time was sometimes hours and many times calls were just discarded as the lines were overfull. Came the Internet, and in just a few years the situation is completely different.

CSN now has completely changed to an e-service operational model (Grönlund 2004) based on web forms, a call center and a large percentage of automated decisions. This has lead to huge improvements, as the below numbers from the annual report 2006 show:

- 39 % automatic decisions
- Process time down from 2,22 days to 1,5 days 2004-2006
- 10 m visits to web
- Average waiting time (phone) down from 6,5 min to 2,5 min 2005-2006
- (1,3 m calls)

(CSN, 2006)

The point here is not the numbers but the factors; they are traditional business measurements. They point to improved efficiency. CSN does not call this eGov, not because it isn’t but because they see it as regular business. There is nothing about “development”, fairness to all kinds of students and such. Reply time is surely a benefit for students, but the thrust is efficient customer service, an NPM measure. One problem in this context is that there are many eGov measures that are missing. Let us now recall these.

It is common to describe eGovernment by various stage models. Many of these are technology-centered (e.g. a much cited one by Layne and Lee, 2001). The one presented here is more fruitful in the context of government strategies because it is based on government activities and organization rather than technology:
Stage 1: Information (e.g. putting information online).

Stage 2: Automation (of existing procedures, with some improvement in effectiveness e.g. by introducing call centers).

Stage 3: Reengineering (remodeling procedures, e.g. by integrating several departments).

Stage 4: Innovation (doing new things by way of analyzing information in new ways, hence creating new knowledge and new policy). (Behn, 2006).

While many individual government agencies, such as the CSN, have achieved considerable gains by streamlining their processes by means of at least partial automation (i.e. stage 2 above), scaling up such gains to all-of-government by cross-agency integration seems not to happen as envisioned. Traditional obstacles reported stem from the typical government silo organization where many factors work against standardization and synchronization. Examples range from issues regulated by laws, such as citizen privacy, professional responsibility and department budgets and evaluation criteria, to more informal ones such as professional integrity, competition, and traditions, and indeed to the sheer magnitude of the problems of making many organizations separated by many years of dispersed development converge. While there are indeed incentives to be seen at the horizon, these are further away from everyday management than the costs and efforts for achieving them.

The new, business model induced, obstacle stems from the New Public Management principles as illustrated above. Because budgets and evaluation criteria are the main incentives, and because these are tied to each other at department level, anything that includes whole-of-system benefits will not happen unless it can be formulated in such agency-specific performance criteria. Many things cannot, as next framework will illustrate.

Looking at the way eGovernment is evaluated we find that typically criteria not reach further than to level 2 as of the Behn model. The CSN example illustrates this. This is in contrast to not only the academic discussion about eGov value creation but also to evaluation models by both EU and OECD (to be discussed below). The academic discussion distinguishes among three types of benefits, each of which should also be considered from the perspective of stakeholders, i.e. at least citizens and governments, as Table 2 illustrates (Lau, 2006):

<table>
<thead>
<tr>
<th></th>
<th>Governments</th>
<th>Nongovernment stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct financial costs and benefits</td>
<td>Reducing costs, increasing value of services</td>
<td>Better services, reduced administrative burden</td>
</tr>
<tr>
<td>Direct non-financial costs and benefits</td>
<td>Synergies across delivery channels, sharing and reusing data resources</td>
<td>Increased user satisfaction, increasing privacy</td>
</tr>
<tr>
<td>Indirect costs and benefits</td>
<td>“Good governance”; supporting legitimacy, supporting growth</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: e-Government costs and benefits for different stakeholders (adapted from Lau, 2006).
The CSN case shows that the financial costs and benefits of the government agency are indeed included and some for the nongovernment stakeholder (quicker access to services is a reduced administrative burden), but none of the non-financial ones. From the brief CSN case we can see the following:

- NPM is a necessary requirement for eGovernment because the costs for ICT investments must be motivated by an account of the benefits. OPM cannot deliver. eGov needs NPM to motivate investment. CSN invested and benefitted.
- eGov is a necessary requirement for (effective) NPM as it provides a tool for process integration and rationalization, mainly built on self-service.
- NPM and eGov work together well at department level.

As a consequence, NPM hampers system-level rationalization as there are no incentives to achieve synergies across departments unless they can be measured at department budgets. Hence, reorganization happens only within departments. Table 3 illustrates this by comparing eGov and NPM goals, tools and measures.

<table>
<thead>
<tr>
<th>e-Government fundamental goals</th>
<th>Tools available under NPM</th>
<th>Measures in NPM</th>
<th>Examples of eGov tools that under NPM require special (political) measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>More efficient administration</td>
<td>NPM, regulating government agencies by goals and budgets</td>
<td>Department efficiency Goal fulfillment per department</td>
<td>Most infrastructural items, e.g. Enterprise Architectures</td>
</tr>
<tr>
<td>Better services to citizens and companies</td>
<td>Department websites, call centers, process reengineering based on self-service: the e-service model</td>
<td>(e.g.) Number of services online Response times Cost per customer (measures on user side are underdeveloped)</td>
<td>All government search tools Integrating services across departments</td>
</tr>
<tr>
<td>Transparency, improved democracy</td>
<td>Assumed to follow from more information being available online</td>
<td>None</td>
<td>All e-democracy and e-participation tools and technologies</td>
</tr>
</tbody>
</table>

Table 3: eGov versus NPM goals, tools and measures.

**Case: eGov not happening**

Swedish health care is publicly run. Although private providers do exist they all work under the national health care insurance system. There are 20 providers (regions). Health care, and associated information systems, have developed stove-pipe style within these regions for ages (the regions date hundreds of years back and health care is their historic responsibility). The result is regional monopoly, incompatible systems – semantic, administrative and technical – across providers, and incomparable performance due to different definitions of measure points. If a citizen has an accident in a region other than her home one and the doctor urgently need her patient record it is not possible. And this is in a country which is consistently ranked among the top few in any ICT use measurement – eGovernment, citizen ICT use, governments online, mobile phones per capita... – which is among the most well-organized bureaucracies in the world, and which
has one of the best social insurances and health care systems in the world. The reason is organizations built for other purposes and kept alive for political reasons rather than effectiveness.

It is not that the problems have not been noticed; nobody has managed to remedy them. The problem situation is described by the regions themselves (Jervall & Persson, 2006) as follows:

IT use varies across regions and municipalities meaning systems often
• Cannot exchange information among each other.
• Are not designed so they can easily be complemented by new functions, e.g. decision support in treatment situations.
• Have difficulties reporting to economy and management systems at both operational and managerial and strategic levels as well as to national registers such as health and quality.
• Are not technically designed for cost-effective operations and stewardship.

Further, patients do not have means to find information about themselves. They also lack opportunities to get service and basic advice/care by means of electronic communication.

In March 2006 the Swedish government presented a strategy document for Swedish health care information meeting a long-known need for standardization “to make health care better for patients and to more efficiently use available resources” (Malmer, 2007). Standardization attempts had been made earlier at several levels, including political reorganization merging the regions which recently failed (the “Responsibility Committee”, which delivered its final reports in 2007, available at http://www.regeringen.se/sb/d/8809). The government presented the strategy, but it is not the owner of it. There are a number of organizations involved in health care, and all of them have been involved in preparation of this strategy. These are:
• The 20 Regions, historically charged with health care.
• The 290 municipalities to which some of the healthcare has been distributed in the wake of NPM thinking. Regions handle medical treatment and municipalities care, e.g. elderly homes.
• Swedish association of Local Authorities, an organization developed to coordinate the municipalities.
• Swedish association of Regions, an organization developed to coordinate the regions.
• Swedish association of Local Authorities and Regions (SALAR), a new organization (since 2005) designed to integrate the actors 2 and 3 above (but in the context of the national strategy both organizations have undersigned it independently).
• Carelink, a company owned by members (currently 70) representing actors numbers 1,2,5 and 10 in this list, created to handle information coordination, access and security issues in health care.
• The Ministry of Health and Social Affairs.
• The National Board of Health and Welfare.
• The Medical Products Agency, the Swedish national authority responsible for regulation and surveillance of the development, manufacturing and marketing of drugs and other medicinal products.
• Apoteket AB, a national pharmaceuticals retailing monopoly in Sweden, a government owned enterprise reporting to the Swedish Ministry of Health and Social Affairs.
This means that for anything to be implemented, 318 organizations, 310 of which are politically governed, have to agree. This is in sharp contrast to OPM where government could dictate every detail. This option is still theoretically possible, but according to NPM is should only be used for basic legislation such as human rights, privacy, terms for competition, etc. Not for developing an Enterprise Architecture, which is what this task amounts to. While municipalities and regions are represented by cooperation associations, these associations have to act based on agreements among member organizations. As stated by the SALAR, “There is no hierarchical relation between municipalities, county councils and regions, since all have their own self-governing local authorities with responsibility for different activities.” (http://www.skl.se/startpage_en.asp?C=6390).

The strategy as it stands today covers principles, not implementation. The cornerstones of the strategy relevant to this paper are (Malmer, 2007):

- Information should follow the patient (as opposed to being locked in at any particular hospital).
- Patients should have easy access to information.

For this to happen:

- Laws and policies must be revised to make best use of the possibilities given by technology.
- A shared information infrastructure [meaning definition of terms] must be developed so information can be both accessed and correctly interpreted at any health care unit across the country. This includes developing a national library of terms, adjusting local catalogues to the national one, but also agreeing on the methods for arriving at such an infrastructure.
- A shared technical infrastructure must be developed so different care units can communicate without being prevented by organizational or geographical borders. This includes security measures, compatibility in technical systems purchased or developed by 318 different organizations etc.

Harmonizing a development hitherto dispersed both by history, political jurisdiction and economic incentives requires special measures. The proposal by the stakeholders (Jervall & Persson, 2006) include:

- Coordinating work methods across [310] regions and municipalities for arriving at data definitions.
- Establishing a national library for maintaining these definitions.
- Adjusting local electronic catalogues so as to make them compatible and interoperable with the national one.
- Developing security systems based on national electronic ID cards (not yet existing).
- Agreeing on common principles for IT architecture [enterprise architecture] and set standards in cooperation among [the 310] health care organizations, care units, and IT manufacturers.
- Developing common quality criteria for user interfaces to ensure easy-to-use systems.
- Establishing a joint organization for developing requirements specifications and regulations which are necessary for making national cooperation possible.

Indeed a tall order. The method to implement this is by “discussion and endorsement among regions and municipalities. This [discussion] is crucial as it is in these organizations much of the work is to be done” (Malmer, 2007).
This statement illustrates the department independence given both by historical political organization and NPM: Even though municipalities and regions have national associations for cooperation, each of them has a say. Hence, the implementation of the strategy is now left to discussions among 318 organizations, 310 of which have a stake both in terms of political independence and budget. Who is to pay for a “shared technical infrastructure”? Answer: Each organization who has to make some change in its current infrastructure, i.e., each organization who loses the struggle over which definitions to use. Where are the gains? Answer: With patients, who will be able to have their records available when they have an emergency away from home, and with government and society who will benefit from lower overall costs for the healthcare system. There is a clear mismatch here between the costs and benefits locus. The cost/benefit analysis as department level can, for 310 out of 318 organizations involved in this endeavor, only see the costs as benefits appear elsewhere. Such mismatches cannot be easily handled within NPM.

In conclusion there is a need for a technical solution, an Enterprise Architecture (the National Data Plan also suggests such a thing), but the problems in achieving this are mainly political, managerial, and economical:

- **Political**, because the actors involved have political reasons for maintaining information monopolies within their geographical areas (for example not competing with other regions which may lead to a loss of patients).
- **Managerial**, because both daily operations and procedures for improvement, assessment, procurement etc. have to be coordinated across multiple actors.
- **Economic**, because large investments have been made in existing incompatible systems (managerial, operational and technical), and gains from coordination do not appear in the same budgets as the costs.

The political problems were created historically, but NPM reinforces them by tying all economic incentives to each organization, not national and citizen goods. Hence, NPM conserves organizations.

**Proposed remedies**

There have been several attempts to overcome the problems with achieving change across the whole of government, which is generally seen as necessary for achieving the goals, or hopes, with eGovernment as defined in the Introduction. We shall here take a brief look at major proposed solutions, which are; Regulation and Standardization, New measurements improving NPM, Negotiations (political agreements), Networking, New government models and ICT for development.

**Regulation and Standardization**: Technical development includes standardization efforts. While many of these concern specific products there is also a set of tools which, although not standardized in themselves, contribute to convergence in the behavior of organizations and, in doing so, often require standards to be developed. Such tools in the field of eGov include various architectures as system level, such as Enterprise Architectures for organizational interoperability and Service-Oriented Architectures for technical interoperability. Such convergence efforts have not yet had much influence over the Swedish or European eGov development. While there are attempts, such as in the Swedish health care case just described, the political commitment to them is not yet
there. The problem is that under NPM such national convergence efforts must be supported by incentives at the level of individual agencies to happen.

**New measurements:** Under NPM what is not measured does not exist. Therefore, there have been attempts to find measures that would implement the benefits desired from eGovernment. For example, the EU EGEP project developed the following framework for economic evaluation of eGov services:

- **Efficiency**
  - Tangible financial gains.
  - More efficient operations.
  - Better empowered PS employees.
- **Effectiveness (better services for users)**
  - Reduced administrative burden (for users, and companies).
  - Increased user value and satisfaction.
  - Increased access to opportunities.
- **Openness**
  - Transparency and accountability.
  - Openness and participation.
  - Better cooperating PA.

(eGEP 2006a; 2006b)

This model directly corresponds to the three “pillars” of eGov quoted above, and it devises measurements. This “eGov thinking” is clearly miles away from the current state of the art as exemplified by CSN above. Determined to implement NPM better rather than to abandon it, the EGEP has constructed economic measures for all these factors. The success of this effort is still to be seen. Only a few countries have yet taken up any of the proposals, and even so only in little pieces. And the fact that the Netherlands have taken up the measure of Administrative Burden – the work required from citizens by government regulation – may be more a result of Dutch individualist culture rather than NPM zeal.

**Negotiations (political agreements):** Negotiations, political agreements, as a method for overcoming the limitations of NPM are widely used. This is the model for the integration of Swedish health care as described above. It is also the general model for the EU. Political goals are to be decided at EU level. These will be implemented nationally by means of either regulations (such as emissions of CO2), economic incentives (e.g. taxation), or both. At EU level this works as long as political agreements can be made. At regional level, as in the above case, it cannot work without national and/or EU regulation (which are increasingly synchronized).

**Networking:** Another EU model is networking. Networks can include regions or actors within some sector. In the case of health care, there are EU efforts to agree on standardization in health care through sector networking. One problem with this method is that different networks may clash. Regional networks may cooperate to strengthen independence of regions from national governments, while sector networks rather would like to integrate operations across regions, such as in the health care example in this paper.

**New government models:** While NPM has encountered much criticism it is fair to say that in practice there is currently no serious competitor – in the developed world. The
Currently, the strongest candidate model in practice would be networking. This is not only strongly promoted by the EU, it is also a model that has a role model in the business world. Large companies have often seen the flexibility of such models. In academia, researchers like Manuel Castells have vigorously argued for such models. Other models like Dunleavy et al. “Digital era governance” also pick up similar elements like technology and “glocalization” providing both new challenges and new solutions. Finally, one should not forget the idea of improving and more strictly reinforcing the NPM model.

**ICT for development**: In developing countries eGov is seen as an impetus for radical change, (ICT for) “development”, with central governments as the central actor. Connecting rural areas, providing a market and startup businesses for the budding IT sector, building government portals.... Almost anything is eGov, and it is funded externally as projects. An example of this view is the World Bank definition of eGov:

E-government refers to the use by government agencies of information technologies that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions. (World Bank, 2004)

In developing countries, the government structure is typically “Old Public Management” (although this term is not used), which means political regulation by detailed instruction through bureaucracies. This is true even if many actors, certainly including the World Bank, work actively to introduce economic measures and competition.

The below table illustrates some of the current remedies, their strengths and weaknesses. While not attempting completeness, it still serves to illustrate the point that eGov success – in terms of its own stated goals – is dependent on the government model in which it is embedded, and that there is currently no single one that provides a clear measurement on which to rely.

<table>
<thead>
<tr>
<th>Remedy proposal</th>
<th>Example</th>
<th>Relation to eGov</th>
<th>Relation to NPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulation and Standardization</td>
<td>Software standards</td>
<td>Generally positive; any standardization makes eGov easier and improves interoperability</td>
<td>Hard to enforce. Any attempt raises resistance from economic unit where costs will appear</td>
</tr>
<tr>
<td></td>
<td>Data communication standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enterprise architectures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New measurements improving NPM</td>
<td>The EGEP model</td>
<td>Generally positive; any standardization makes eGov easier and improves interoperability</td>
<td>Hard to enforce. Hard to find economic measures for e.g. citizen benefits, democratic values etc</td>
</tr>
</tbody>
</table>
Conclusion

This paper has briefly discussed eGovernment development in relation to the most prominent government strategic management model today, New Public Management. We have shown, by example and by analysis, that the goals typically aimed at by eGovernment – more efficient government agencies, better services to citizens, and more transparency and openness – are in fact not possible to achieve under NPM. We have discussed some of the remedies proposed. While NPM has proven necessary for eGov because it provides the necessary economic thinking, it has also proven detrimental because it does not support value creation at system level. And system level values are at the heart of eGov.

Hence, as seen from the point of view of eGov development, NPM is generally conserving organizations, reducing not only incentives for cooperation but also failing to at all measure system benefits, both in terms of government efficiency and effectiveness.
7. References


“The Italian Public Procurement System: Consip’s best practice”

Danilo Broggi, Managing Director of Consip, Italy

The introduction of eProcurement tools within the framework of the Program for the Rationalization of Public Spending on Goods and Services (named Public Procurement Program) - managed by Consip on behalf of the Italian Ministry of Economy and Finance (hereinafter MEF) since the year 2000 – has acquired greater importance, in the field of Public Procurement, as it highly contributes to the innovation and simplification of the procedures and at the same time generates savings.

The new Public Procurement system set up by Consip is actually considered as a national best practice, also very popular abroad, since the Italian Public Administration is more and more aware on the advantages gained in terms of process, cost and human resource savings when using the eprocurement tools available on Consip’s platform.

The main objectives of the Public Procurement Program are:
• to simplify and make more transparent the public procurement process;
• to reduce time to market;
• to reduce unit costs (also by means of demand aggregation) paying attention to quality (best quality at the lowest price);
• to make an accurate public needs analysis;
• to make deep market analysis.

The Public Procurement system set up by Consip offers two main eprocurement tools for the purchasing of goods and services:
1. Framework Contracts.
2. Electronic Marketplace (MEPA).

1. The management of framework contracts

The framework contract system has a primary importance among the tools of the Program for the Rationalization of Public Spending that have a significant impact on public finance. This system is based on the underwriting of framework contracts by which supplier companies undertake to accept, at the set conditions and prices, supply orders on the part of administrations up to a pre-determined quantity or total value. Therefore, the administrations may issue delivery orders directly to the supplying companies, with which they entertain autonomous contractual relationships. Orders may be issued via fax, certified mail or electronically, through the Electronic Shops available on the public procurement portal www.acquistinretepa.it, which display the lists of products and services, as well as all relevant technical information, supply conditions and price indications.

All in all, the framework contract system allows to achieve a number of benefits in terms of compliance with the principles of transparency and equal treatment of potential contractors, of the reduction of the unitary prices of goods/services and of contract definition costs, of simplification and centralization of tender procedures.
In fact, all Public Administrations using framework agreements can purchase goods and services above the European threshold (137,000 euro for central administrations and 211,000 euro for local administrations) without having to run a tender.

As a logical consequence of this process simplification, what is achieved is also a reduction of litigation management costs, an increase in tender procedure transparency, the guarantee of a high level of market competition, the reduction of delivery times, the availability of a significant amount of information on intermediate consumption and also a further stimulus towards innovation through the ever growing use of information technology procedures.

The preparation process of framework contracts is principally aimed at the reduction of purchase prices through tender procedures that contemplate the aggregation of demand, once again value for money. The method that is used to calculate the reduction of prices that is obtained, while maintaining the quality level expected by public administrations, contemplates subtracting the tender awarding price from the average price paid by public administrations for a specific good or service in the absence of Consip framework contracts. The effectiveness of this method has been confirmed by surveys made in the course of the last few years in collaboration with the MEF and the Italian Statistical Studies Institute (ISTAT). The latest surveys conducted on a number of product categories handled through framework contracts, dated 2007, have certified an average annual saving of approximately 20% on market prices.

The tender procedure for a new framework contract begins with the identification of common or specific requirements of Public Administrations and continues with specific feasibility studies that seek to find the contact point between the goods/services quantity and quality requirements of the administrations with the best quality/price ration that the reference market can offer for the desired product category. These feasibility studies (tender strategies) also take into account the analyses and results that have emerged from the technical meetings that have taken place with the interested industry and category associations.

Once the framework contract has been activated (at the end of the entire procedure of publication of the tender, supplier selection and awarding), the initiative is monitored recording the value of every single transaction and the number of orders produced by the contract. The total value of the transaction that take place through the framework contract system (the so-called transacted value) is recorded on a data warehouse system that is fed by the flow of data made available by suppliers in order to verify the level of use of the contract and its available residual values.

The last phase in the management of a framework contract is that of the monitoring of the service level provided by suppliers to administrations. This activity is done through inspections undertaken by third parties that are entrusted this task by Consip, as well as the implementation of surveys and analyses on complaint trends. All this information is then elaborated by a dedicated information system that produces specific reports supporting decisions on any action towards suppliers that may be needed to improve the service.
Legal Aspects

According to Financial bill 2007 all central Public Administrations (central governments including their territorial headquarters), have to use Consip’s framework contracts when purchasing a list of goods and services identified by the MEF.

The remaining administrations (schools, universities, municipalities, hospitals etc…) may choose to procure themselves through the use of framework agreements or to consider the cost/quality parameters as a maximum limit.

The results achieved

The following picture describes the general trends of the principal figures (expenditure¹, potential savings² and transacted value³) that have been generated by the Framework Contract System from its beginning to the end of 2007.
In 2007, the framework contract system registered a significant increase in **potential savings**, thanks to the awarding of the initiatives and the renewal of expired or exhausted framework contracts. The total value of expenditure was approximately 13.7 billion euros, with potential savings of 3.67 billion euros. The number of framework contracts available in 2007 is 66.

The **transacted value** reached 1.46 billion euros, 10% increase vis à vis 2007. From the point of view of the use of the System, the number of orders issued has been on a constantly growing trend over the years, confirming the good results that have been achieved by the Program up to now.

Regarding the use of the framework contracts, on the part of the different administrations, the total transacted value sees a prevalence of the State (Central and Peripheral Public Administrations, with 64%) followed by Local Authorities, (with 20% out of the total), Health Services (11%), Universities (5%).

### 2. Development and reinforcement of the Public Administration Electronic Market Place (MEPA)

**What is the MEPA?**

The Public Administration Electronic Market (Mercato Elettronico della Pubblica Amministrazione, MEPA) developed by Consip represents a very advanced case of adoption of a new electronic purchasing tool for public needs, not only at a national, but also at a European level.
It is a digital market accessible through the public procurement portal (www.acquistinretepa.it) – where public buyers – public officials authorized to make purchases on behalf of their administrations – may look for, compare and purchase the goods and services that are offered by the suppliers authorized to display their catalogues on the system, in compliance with specific tenders published by Consip for various product categories.

Therefore the market is:

- **Selective**, in that its access and use is limited to those actors who have passed a qualification process based on the verification of their compliance with specific pre-requisites.
- **Specialized**, in that it is aimed at satisfying the specific procedural and administrative purchasing requirements of public administrations and of the suppliers that interact with the market (documentation characteristics, archiviation modalities, use of the digital signature, etc...).
- Based on an *ecatalogue of authorized products*, in that all commercial transaction undertaken on the market have as their object goods/services displayed by suppliers in a catalogue form and that are admitted to be exchanged on the electronic market as a result of an authorization process managed by Consip.
- Usable exclusively for *purchases of goods and services with a value below the European threshold*.

The market offers two purchasing modalities:

- **Direct Purchasing Order** – a purchase not involving any specific negotiation between the administration and the suppliers of an article displayed on the catalogue of a given supplier at the conditions that are set in the same catalogue.
- **Request for Quotation** – a purchase that is effected by an administration through a “tender” organized among companies that are invited to participate based on a selection of suppliers registered on the MEPA.

With respect to the framework contract system managed by Consip, the Electronic Market is a complementary channel particularly appropriate for the purchases of goods and services that are more successfully managed from a local level due to their characteristics (as in the case of non standardized goods), or the type of requirements that they have to meet (for example, fractioned, frequent, small, or specific service option purchases). The type of expenditure that is typically the object of a framework contract is thus characterized by the possibility and convenience of standardizing and aggregating administration demand in order to obtain a significant saving in terms of unitary purchase costs.

The use of the MEPA is undoubtedly associated with a number of advantages for the players participating in the market: the suppliers (especially Small and medium-sized enterprises) and the public administrations. What follows is a synthetic representation of these advantages:

<table>
<thead>
<tr>
<th>Advantages for Suppliers</th>
<th>Advantages for Public Administrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A new channel for commercial interaction with Public Administrations at low costs (the participation in the Electronic Market is free of charge).</td>
<td>• A reduction of the costs of the purchasing process through a reduction of the time required for market analysis, product comparison and communications</td>
</tr>
</tbody>
</table>
• **A wider potential market** in the Public Administration context and a greater visibility of the offer. Companies may choose the extent of their territorial operations, from a single province to the entire nation.

• **A greater competitiveness** related to the localization and/or specialization of the offer and to the possibility of highlighting the added value to SMEs.

• **A lowering of sale costs** deriving from the reduction of intermediation and sale process management costs.

with suppliers, as well as the elimination of bureaucratic processes related to the drafting of contracts (which are supplied by the central purchasing agency).

• **An extension of the potential supplier base**, both nationally and locally, which allows to compare and identify the most competitive ones, as well as the ones which best meet the requirements of the administration.

• **The offer of a catalogue of selected products.** The Electronic Market provides easy access to the products of authorized suppliers that meet the quality standard set in the qualification tenders.

• **A wide and deep range of products.** Administrations may choose from a wide (a large number of product categories) and deep (the variety of products/suppliers within every category) range of products.

• **A simpler negotiation with suppliers.** The Electronic Market offers the possibility to negotiate delivery times, prices and conditions with respect to what is stated in the catalogues by sending online a Request for Quotation (RfQ) to a selected number of suppliers.

• **A reduction of purchase prices** produced by the greater competition allowed by the MEPA.

• **The possibility to monitor purchases** and control expenditure.

In the Italian public administration context the full deployment of the advantages listed above will be achieved in the medium-long term, due to the many obstacles – technical, related to change management and also cultural- that need to be overcome in order to obtain a complete dissemination of this procurement model.

Nonetheless, the experience so far in the development of the Electronic Market and the surveys made on the use of the tool on the part of administrations, point to a gradual overcoming of the cultural resistance met in the initial phase of the project. Especially on the part of administrations, the growth of the value of the purchases made through this system indicates a growing awareness on the advantages in terms of efficiency and savings that are provided by the use of the MEPA.
Under this light, the further reinforcement of the Electronic Market requires the implementation of a network effect, meaning a virtuous process that produces a population growth on the side of both demand and offer that will further develop the market and the “collective advantages” that are associated with it.

The result as of today

The development program of the Electronic Market has been split into two phases:

- **Testing** (between October 2002 and June 2003), with the aim of verifying - on a sample of a few dozen administrations and suppliers and on limited geographical areas and product categories - the adequacy of the technological, organizational and legislative aspects of the tool to the real requirements of the market.
- **Dissemination** (initiated in the second half of 2003), with the aim of promoting a widespread use of the tool throughout the national territory with a larger number of product categories.

From the point of view of the method used, the launch of the new market was led by an initial promotional phase mainly involving *enterprises* that aimed at reaching an offer population level that would be sufficient to entice the interest from the first potential “purchasing” administrations and that registered a rapid growth of the number of articles published on the catalogues. Then, beginning with 2005, an intense communication and support campaign was initiated on behalf of purchasing *administrations*, so as to significantly increase the system transaction level, in terms of both numbers and value.

This approach has led to achieving in 2007 particularly significant results – as shown in Picture 3 - taking into consideration the innovative nature of the project and its limited time of activity:

- 83.6 million euros in transacted value, in comparison with the 38 million euros of the previous fiscal year.
- 28,173 purchasing orders, 146% more than in 2006 (11,468 transactions).
- 2,750 active public buyers.

**Picture 3 – Historical data on the Marketplace - main results**
A first lesson learned from these years of initial dissemination of the tool is the confirmation of the fact that the development of the demand from Public Administration is the essential condition for the gradual expansion of the Electronic Market. The response of enterprises is in fact extremely “elastic” in relation to the perception suppliers have of the level of acceptance and dissemination of the MEPA among Public Administrations.

This realization has led Consip to intensify its efforts in the area of information, training and support of those in charge of public procurement, achieving results both in terms of number of active administrations and the gradual fidelization of users. In fact, an analysis of the behaviour of active public buyers evidences a growth trend in the use of the new tool, as confirmed by the average transacted value per public buyer which is equivalent, in 2007, to 2.800 euros.

This sustained growth is accountable to both a gradual learning process of digital purchasing procedures and a consequential more frequent use of the MEPA in lieu of more traditional methods. As a matter of fact, the average number of annual transactions per public buyer has also grown significantly, from 8.8 in 2005 to 11.2 in 2007.

Obviously, the consolidation and widespread acceptance of the MEPA is a direct result of the capacity on the part of Consip, as well as of other institutions interested in the dissemination of eProcurement methods, to train and support administrations in such a way as to increase the absolute number of active Public buyers (whose potential number is estimated to be approximately 55,000) and to develop their frequency and intensity in the use of the tool, making the MEPA an everyday activity.

Under this aspect, one must not underestimate the first difficulties in usage met by Public Administrations. In the great majority of cases (95%), administrations are supported in their first electronic purchase by Consip personnel, both through a direct presence in the premises of the purchasing administration and through an indirect presence mediated by telephone-based telemarketing and customer care processes.

Undoubtedly, notwithstanding the heavy dependence on the attitude of the individual public buyer, an increase in the frequency and the value of transactions may be achieved also through an improvement of the usability characteristics of the MEPA information system, which has already undergone many improvements, as well as on the quality and quantity of the offer provided by suppliers.

From this point of view, the current quality of the offer that is available on the Electronic Market (16 different product categories, around 1830 online catalogues and over 333.000 online items) is characterized by a domination of information technology products and office supplies, the so-called ICT/Office sector (accounting for approximately 84% of online articles), which is obviously more inclined to employ new technologies in the management of customer relations.

Finally, MEPA’s strong orientation towards the requirements of local markets is confirmed by the widespread presence of SMEs (which account for around 90% of qualified companies), which also confirms the greater ease on the part of commercial enterprises of limited dimensions to access the Electronic Market in comparison with other more traditional negotiation systems (for example, the framework contract system).
It is specifically on the facilitation of SMEs participation that Consip has concentrated its communication and training efforts with regards to the supply market. In this context, a “collaborative model” of action has been adopted, involving the activation of the previously mentioned “Supplier Desks” that Consip has set up in cooperation with the main industrial associations within their territorial premises in order to offer SMEs a channel supplying information, training and operational support for their participation in the MEPA and, more in general, for the dissemination of digital technologies in the area of public procurement.

NOTES
1 This refers to the annual expenditure that public administrations sustain for goods and services covered by framework contracts that have been provisionally awarded (a provisional awarding to a supplier by the tender committee) and awarded (the award proposal has been ratified by Consip’s Board of Directors) in the course of the year.
2 This is the savings on expenditure that can be achieved through the reduction of unitary costs, at a parity of quantities purchased. The total potential savings also considers the benchmark effect for those Public Administrations that have the option of using the framework contracts and the obligation of using their quality and price parameters in the purchases of goods similar to those offered in the framework contracts.
!3 The transacted value of a framework contract is the economic value of the transaction made by the Public Administration within the context of Consip’s initiative.
An integrated e-Government platform brings new opportunities. Boosting Administration efficiency and the value of services through interoperability

Veneto Region, Italy

Context
Sirv-Interop is a key project in a series of actions planned and currently in progress by the Veneto Region to promote innovation of technology, organisation and methodology of Veneto Local Authorities.

Sirv-Interop stems from the e-government Masterplan approved by the Veneto Regional Council in 2002 (DGR n. 56 dated 18 January 2002). The technology partner of the project is the IT company INSIEL S.p.A.

Objective
The main purpose of the project is to create the organisational, infrastructural and operational basis to allow inter-operation between all the different levels of Public Administration active in Veneto.

The project will not build physical infrastructures like networks or acquire connecting equipment (which in Veneto are fairly adequate already) but it will provide the technical and application mechanisms that will place any Public Administration in a position to co-operate with each other easily and efficiently.
As the promoting entity of INTEROP, the Veneto Region is strongly committed to being the intermediary of such co-operative, inter-operating system without interfering with the autonomy of any other Administration. The Veneto Region will simply supply all Public Administrations with the minimum participation requirements acting as a pivotal and monitoring agent of the whole system.

**Project description**

Massive, automated exchange of information and services between different Administrations is the current challenge for IT in the Public Administration.

The Veneto Region does not wish to provide the only and one solution to inter-Administration connection difficulties it rather wants to make available to all interested parties (Municipalities, Provinces, Consortia of Mountain-area Municipalities, Local Health Authorities) a series of tools that can help them solve such problems.

The focus of the project is on few basic services:

- Registry Office Personal Data Update Registration.
- Registry Office Personal Data Communication System.
- Access Control System.
- Inter-Administration Application Sharing.

Communicating personal data variations is the first, fundamental element of cooperation as it is the basis that allows more complex and powerful transactions.

**Services provided:**

- Citizen's Personal File.
- Access System.
- Application Sharing.
- Registry Office Personal Data Updates Registration.
- Micro-portal to register data changes.
- Integration with inward/outward mail-book.
- Integration with the registered e-mail system.
- Birth Electronic Registration System.
- Personal Data Enquiries.

**Technical features**

The system is divided into two separate entities: one at the Local Authority allowing the information flow, the other at Veneto Region managing the system and the information flow. This means that Local Authorities need not create any infrastructure but can exploit the services provided centrally by the Veneto Region.

The project is based on widely available technology so as to avoid dependence on specific hardware and software.
Software components use JAVA in all standard interfaces available: JMS, SOAP, DOM, XSLT, XSS, XML, DB, SAML. This means that the system can be used irrespective of the operating system or infrastructure available (application server for example).

As best-of-breed software development demands, an interface for the most diverse applications has been created using JAVA classes, Web Services, EJB, XML-RPC. This approach has the advantage of allowing the use, as an alternative, also of individual components available on the market that include the above interfaces. In fact the aim of the project is the development of a platform that can integrate the most common technology to the core provided by the Veneto Region.

The main technological components are:

**Application Server**
The reference technology is Web Services integrated by the whole series of interfaces for Relational Databases (JDBC)
Directory Server (JNDI)
Message Queuing Systems (JMS)
Simple Assertion Markup Language (SAML)

**Directory Server**
LDAP compliant. Access Control, Replication, Partitioning, Referrals and Chaining.

**Message Queuing**
The system supports both the publish&forward and the publish&subscribe modes. JMS standard interfaces for the applications

**RDBMS**
Supports standard protocols i.e. SQL, JDBC.

**XML**
Release 1.0. XSLT, Xpath. Parsing: DOM and SAX

**Remote Access**
SOAP.

**Digital signature**
complies to the Italian Ministry of Technology and Innovation specifications (RSA, SHA1 etc.) and adheres to the Veneto Region specifications.
Characteristics of the Infrastructure

Standards
The standards are those approved by the Italian IT Agency (CNIPA) namely SPC and Busta di e-Government. From a technological point of view software components comply with the most common standards (JMS, DOM, JNDI, XML:DB, SAAJ, JAXR, etc.) (LDAP, UDDI, SAML, SOAP, etc.).

Flexibility
System configuration is highly flexible as it allows to choose proprietary as well as open-source components according to specific needs.

Low costs
The infrastructure is completely open-source with no purchase or licence costs.

Reliability and easy maintenance
Reliability, performance and easy maintenance were priority features in the choice of the system components.

Compatibility
Although developed in Java, .NET interfaces are available.

Integration
Integration with legacy systems is guaranteed. A specific software gives the possibility of interoperating through web services or simply via http protocol. A .NET interface is available.

Operating systems

Open Source
Having access to the source code means complete autonomy from any provider.

Security
Multiple security layers (SSL) smart card (CNS) access management (SAML) signature (XML-signature and (XML-signature and PKCS#7). Document exchange relies on digitally-signed documents and a garantor. Each individual Administration manages access rights to own services.

Training
A further action was addressed to ICT business partners of Veneto Local Authorities. Participating companies covered 97% of Veneto Local Authorities.

These companies participated in training courses on interoperability. 20 engineers (developers and analysts) were thus trained.

A certification mechanism was also created to establish formally the status of an ICT company as ‘up-to-date producer’ and to guarantee the standard of services with the label ‘Compliant Service’.
The objective of the training was two-fold: a) promote the use of the Regional Interoperability Platform b) provide Local Authorities and their IT partners with a sound and robust basis on which to organise and plan future activities together.

Participating organisations

- 140 Municipalities including 5 Province capitals (Venice, Padua, Treviso, Vicenza and Verona).
- ICT Centre of Lessinia (covering 50 Municipalities).
- ICT Centre of Belluno (68 Municipalities).
- National Institute of Social Insurance.
- Venice Chamber of Commerce.
- Regional Agency for the Payment of Farming Subsidies (AVEPA).
- Prefecture of Venice.
- Local Health Authority n. 13 and Verona and Padua Hospitals (Booking Centre).
- Babies’ Pathology Regional Observation Centre of Padua (PD).

Benefits

Speed
- Updates and information requests are dealt with swiftly.
- No inaccuracies that may result from a delayed update.
- Increased efficiency in other services connected to the update.
- Wider range of services that can use the updated information.

Reduced costs
- Less administrative costs to process information requests or updates.
- Less personnel costs.
- Less ‘consumables’ costs (paper, CDs, etc).
- Less communication costs (post, telephone, fax).

Possibility of counting requests
- opportunity of providing pay-per-use services.

Direct access to information
- No inaccuracies as the result of “old” (still not updated) information.
- Accuracy of personal data as they are provided by the data ‘source’.

Control of accesses
- Access to personal information strictly controlled.
- Different levels of access to personal information depending on status of enquirer (differentiated access rights).

Certified information flow
- Valid from a legal point of view (electronic document).
- Immediate Integration of information in the administrative process.

Compatibility and integration with the back-office
- Inward-outward electronic mail-book.
- Info registration.
Successful use-cases

SIPA
Sirv-Interop is being used by the Veneto Region and the Regional Agency for the payment of farming subsidies (AVEPA).

AVEPA and the Veneto Region have two independent IT systems each using different hardware and above all different software. Of course data exchanges refer only to information that is needed by both organisations to fulfil their respective administrative responsibility.

The SIPA project therefore had the objective of updating information in real time on both information systems. The applications running on both systems work in a circuit in which legacy systems, through a specific software (gestore eventi), ‘trust’ each other on variations of farmers’ data registered in the partner system. This means that staff keep using their applications. At the same time data updates are forwarded to the partner system automatically, that is with no human activity involved. We refer to this as advanced interoperability where human tasks are limited to fixing possible malfunctioning. The volume of information exchange varies during the year from 50 to 5,000 messages daily. The last amount refers to the period in which payments are made.

CUP
Local Health Authorities and Hospitals have joined the project in great number as they felt the necessity of having a unified booking service at provincial level.

This entailed the establishment of a Provincial Booking Centre with availability of booking information for all Booking Centres active in the Province. The Head Booking Centre needed to interoperate with all the other Centres:

- to make enquiries as to the availability of a specific service at a given hospital;
- to know the dates when the service could be performed;
- to confirm the booking of the service;
- to know patients’ personal information.

Sirv-Interop provided the technological infrastructure that made possible integration of all the different Booking Centres.

Sirv-Interop provided

- centralised services (service list, assertion server, gestore eventi, citizen's personal file);
- connecting software at local level (Porte di Dominio);
- installation and configuration of the software at the premises of participating organisations.

Sirv-Interop also provided staff training for Booking Centre Software management personnel including on-site checks and system tuning. The project is operative.

CEDAP
Sirv-Interop is the technological infrastructure which enables the issuing of the Electronic Birth Certificate (CEDAP). The electronic birth certificate is issued at birth at hospital premises. The information contained in the certificate is transferred to the database of the Babies’ Pathology Regional Observation Centre of Padua.
Through the connecting software (*Porte di Dominio*) the Observation Centre forwards the information to the system which, in turn, can pass it to all organisations that are entitled to it. The system is available to all Veneto hospitals. All the Municipalities that have joined the project can receive the Electronic Birth Certificate from the Observation Centre of Padua as well as forward to the Centre citizen's personal data contained in their archives.

**Summary**

The element that stands out in the use cases of Sirv-Interop is the wide range of subjects for which the platform can be used: from the social and health services management of the CUP project to the financial processes of the payment of subsidies as in the case of SIPA. Retrieving and updating personal information on partners’ archives is equivalent to full-fledged interoperability of independent, autonomous systems.

The availability of a standard communication infrastructure has enabled engineers to concentrate on their core-business leaving information exchange to the Sirv-Interop interoperability platform.

We feel this is the objective of a truly inter-operable infrastructure and this was the notion which inspired the design of Sirv-Interop.

The objective of an interoperability project is not about developing application services - which should remain the responsibility of individual IT systems – but rather about creating a co-operative mechanism enabling inter-operability, providing all participating partners with the basic requirements to join the system, acting as switching agent and finally monitoring the performance of the system.

Another major element under the responsibility of the Veneto Region concerns standardisation both of communication protocols and messages including any modification of standards approved at national or international level which will be incorporated in the inter-operability platform.
An integrated e-Government platform brings new opportunities. Boosting Administration efficiency and the value of services through interoperability

Figure 1 – The SIRV-INTEROP Community Portal
e-Government in Denmark: Challenges and visions

Jørgen Abild Andersen,
Director General, the National IT and Telecom Agency, Denmark

Staying ahead of the curve

Maintaining momentum is a major challenge for many pioneers. How do you continue reinventing yourself and provide new strategies to keep you ahead of the curve?

Those are a few of the questions that we had to ask ourselves recently. For now Denmark remains in the global elite, when it comes to IT, but that position is in jeopardy. Our leading role is not threatened because of Danish complacency. On the contrary, the position is threatened because many other countries – primarily from Eastern Europe and Asia – are experiencing rapid progress these years.

Without an extra effort, Denmark and many other countries, which used to be in the vanguard, will find themselves trailing behind other countries from this second wave of digitalization. Our motivation is to keep up the good work, and to search for new solutions and possibilities. We are working hard to create a society of possibilities through ICT. A society in which everyone is able to create a good life in a secure environment with a global outlook. ICT will play a key role in meeting the challenges, we are facing in the years to come. At the moment we are working on various strategies to maintain our leading position. Recently the Ministry of Science, Technology and Innovation have established innovations centres in Shanghai, Silicon Valley and Munich, which gives us a great opportunity to learn from some of the progressive IT centres of the world. And on the home front we are working on numerous e-Government initiatives to maintain Denmark's front position in the global ICT race.

The Digital Denmark

The rapid development in ICT has created a wide range of possibilities for the citizens in Denmark. Various surveys have shown that the Danish citizens are very familiar with e-Government, and they feel safe when using ICT technologies. We are working strategically to use these advantages and develop new possibilities for all citizens. In terms of developing new e-Government tools, we focus on these three guidelines:

- Digital solutions should add value to the individual user.
- Usability should be in focus rather than the technology.
- ICT will be proactive in new solutions and structures.

Flexible digital solutions can give an overall quality boost to e-Government in the public sector. Developments these years are in a decisive phase, with digital solutions being merged and integrated across the public sector. To support these objectives the 2007-2010 Danish e-Government strategy raises the level of ambition and sets new standards for the development of citizen services and cohesion across the public sector.¹
The strategy entails better and more compulsory cooperation among all levels of government. The implementation of specific digitalisation measures will continue to be anchored in individual public authorities. Public agencies should put in place cohesive digital solutions to ensure the transfer of resources from the administration to citizen-focused services.

In this light, the strategy focuses on three general interacting priorities:
- Better digital service.
- Digitalisation to facilitate increased efficiency.
- Stronger collaboration to create digital cohesion.

**Services for citizens and the private sector**

It is a daunting task to assure that citizens will actually use the public information and services made available online. In order to achieve this goal, it is important that the content provided is useful for and valuable to the citizens. That is one of the reasons why it has been a main priority to promote the citizen portal borger.dk. This portal is thought to be a single entry point for citizens to most common government services in both state and municipal levels of government.

The portal is evidence of the citizen-centric approach to e-Government that has been prevalent in Denmark. It is vital that we think of e-Government not as driven by technology, but driven by citizens’ needs. Thus, when the second generation of the portal is launched in October 2008, it will include a personalized page for citizens, (“my page”) where the individual citizen will be able to access all relevant information regarding his or her dealings with public authorities.

Moreover, Danish enterprises should use ICT innovatively in order to remain competitive. This is a basic condition for growth and prosperity. The aim is to give Danish enterprises the best possible framework for progress and dynamism. This applies for instance to the NemHandel initiative (literally Easytrade) which, together with the opening of an e-Business centre (known as the IBIZ Centre), is to ensure Danish enterprises a competitive edge on the rest of the world in relation to e-Business. The NemHandel initiative makes it just as easy for an enterprise to send an electronic invoice as to send an e-mail.²

**Open Standards**

Denmark is in the vanguard, when it comes to promoting open standards in the public sector. Starting January 1, 2008, we have made it mandatory for all Danish public authorities to use open standards for software.

Open standards will improve conditions for interoperability between IT systems, solutions and organizations and coherence in the public sector. Furthermore, improved coherence will further efficiency and effectiveness in the public sector and make certain that tasks will flow easily from one system or organization to another. This will be of benefit to the development of e-Government.³
World-class ICT infrastructure and skills

It has been another priority for the Danish government to ensure that a world class electronic infrastructure is made available to everybody. It is an ambitious – but vital – goal. Every citizen should be able to gain access to broadband – regardless of where she or he lives. By now more than 99 percent of the Danish population has the opportunity to gain access to broadband. Moreover, there is a broadband penetration of 36.1 percent–making it the highest percentage in the European Union. Denmark also has the highest percentage of broadband subscribers among the OECD countries measured per 100 inhabitants. Nonetheless, international benchmarking shows that there is still room for improvement, not least in terms of speed and prices.

However, infrastructure in itself is useless if the citizens do not possess the necessary skills to use the electronic infrastructure in the best possible way. Therefore, the goal is to further enhance citizens’ competencies in the safe and efficient use of ICT. More research and more education in ICT are other ways of obtaining these goals. Access to qualified employees is crucial to ensure competitiveness and growth. Initiatives, based on e-Learning and the principle of life long education, are being planned.

There are also other challenges to be met. In recent years, Internet users have gone from being predominantly passive recipients to being active players to a far higher degree, creating digital content and placing their own usercreated music, images and films on the Internet. This calls for new demands on the speed at which user data can be transmitted (upstream). Today, a large proportion of Danish broadband connections are asymmetric, with a larger transmission downstream than upstream. As a result, the user needs a longer time to send images, videos etc. than to receive them. In addition, new services, including the use of peer-to-peer technology, make demands on transmission speeds both to and from the user.

Safety and security

With the present radical digitalisation of the Danish welfare society, it is crucial to maintain and expand citizens and businesses’ trust in the Danish public sector. Therefore safety and security issues will continue to constitute an altogether central part of the Danish e-Government strategy.

The public authorities must ensure that it is safe and secure for citizens to use public services. The digital signature developed by the Danish government is a way of securing legally binding and secure communication on the Internet. The signature ensures authenticity, integrity of communication, security and privacy. So far over 1,000,000 free digital signatures have been distributed to citizens, companies and employees. That is an extraordinarily high number in a country of about 5,500,000 inhabitants. But even though the digital signature has many users, we can make it even better. At the moment we are working on the second generation of digital signatures, where the usability is in front. This signature will be even more accessible and easy to use. With the second generation of digital signatures it will be possible to log on, no matter where you are, as long as you are in front of a computer. And the new digital signature will have an even wider foundation, because it will be possible to use it both in the public and the private sector. When launched, the citizens of Denmark will only need one secure and easy signature to gain access to public services and internet-banking as well.
Our long term goal is the development of a biometric identification card to make it even easier for the Danish people to participate in the information society. This card will be able to identify a person in a very safe and precise way.

What’s next?

In the years to come we will work strategically to use the full potential provided by Web 2.0 technology. This technology will strengthen links between administration and citizens. However, if we want to fulfil all of our ambitions, e-Government must go beyond technology. We have to combine the citizens’ needs with the working procedures of the public sector. By 2012 all digital communication between companies, citizens and the public sector should be electronic.

However, Denmark not only wishes to use the full potential of ICT technology. We must be accustomed to not just thinking in terms of best and cheapest when purchasing and using ICT. We must also think in terms of what is sustainable. We are currently implementing an action plan for Green IT. ICT has an important role to play, especially regarding challenges to the environment. It is important to diminish the negative side effects of the use of ICT, while also realizing that new and innovative ICT solutions can help lower energy consumption, i.e. by introducing intelligent power, light and heat devices in homes, businesses and administrations.

Maintaining momentum is a major challenge for many pioneers. We are constantly trying to be a front-runner in the field of further development of e-Government. In the following years we will strive to accomplish even greater benefits, in order to keep ahead of the curve.
Making real innovation: how the e-Gov projects become realities in Florence

Ada Russo, Gianluca Vannuccini, Information Systems Department, Town Council of Florence

The Municipality of Florence is engaged in a complex plan of organizational, technological and cultural change: we were in charge of two e-Government projects (People and e-Firenze) that set up innovative infrastructures and service to supply services to citizens and enterprises through a well-integrated multicanal system (different channels).

The first, nation-wide project, was PEOPLE, funded by national e-Gov plan, and ended in October 2006. The PEOPLE project main deliverable was an engine allowing municipalities to offer e-Gov services through their own portals, capable of a total interaction with their back-offices. Documents and forms sent to the municipality through the PEOPLE engine are able to go straight to the legacy system managing the corresponding service (e.g. local taxes management information system).

The PEOPLE project results are now a stable production reality in more than 10 municipalities that every day offer online services to their citizens through the PEOPLE framework, while many other public administrations are in their way to start the activation of the first services.

One of the other indirect results of the PEOPLE project was the creation of a nation-wide network of municipalities, that continue, even now that the project is finished, to share knowledge, ideas and best-practices among them.

Furthermore, the PEOPLE project has broadened its scope, since 6 Regions presented to the CNIPA (Centro Nazionale Informatica Pubblica Amministrazione) re-use projects to introduce the PEOPLE services inside their local administrations.

The other county-wide project that was lead from Florence during the past 4 years has been e-Firenze, also funded by national e-Gov plan, and ended in October 2006.

The main output of the e-Firenze project was the creation of a multi-channel, metropolitan-area-wide e-Gov Services Center (Centro Servizi Territoriale – CST), where more than 30 municipalities share the front-office infrastructure, including call center, CRM, services portals, authentication and e-Payments. All these services are offered through the county of Florence by the same subject, and - thanks to the e-Firenze project - all the municipalities of the area can share the same e-Gov infrastructure, as well their best knowledge, skills and best-practices.

Of course, the e-Gov infrastructure provided by the e-Firenze project perfectly matches with the PEOPLE service engine, which is used as the shared integration framework between the common front-office and the different back-offices.

The use of different channels is intended to allow an easier access to services and a better quality answer to the users of them. The Florence municipality was also concerned with its back-office re-organizations.
The Town Council of Florence realised that the publication of online services could be successful without a proper assessment and re-organization of its back-office infrastructure.

As every enterprise information architecture, the Town Council of Florence arrived at the beginning of year 2000 with more than 200 databases, containing very important data related to citizens and their interactions with the Government.

Such a wide information patrimony was worth to be well sustained, and guaranteed for future services, therefore, the municipality decided to start a first assessment of all the most important databases and, consequently, activated in the year 2005 a new project called Base Dati Patrimonio Informativo (BDPI), which was an internally-funded project, that is going to finish by July 2008.

This project has produced an Enterprise Information Integration system, based on advanced standards like BPEL, where more than 60 databases are daily synced with a central database, where data are re-organized, normalized, and qualified, following the data-ware-house principle. The real innovation with respect to the datawarehouse is here the fact that the central database returns to the original databases qualification proposals. Therefore, every day each office is able to view the proposed modifications to the data contained in its database, suggested by BDPI, which makes millions of comparisons among data coming from different databases, and states the “truth” and qualified data based on assumptions (such as: the truth for anagraphical data of a citizen is contained in the demographic system database).

A scheme of the main e-gov infrastructure of the Municipality of Florence is depicted in the following figure:

The above figure represents also two other important systems derived by the above architecture, namely the new Municipality integrated Geographical Information System, and a current evolution of the BDPI system, the introduction of a layer of Business Intelligence on top of the integrated data platform represented by BDPI.
The top of the iceberg

The above scenario can be easily understood as the result of a huge technical work done by several people of several different municipalities.

However, a similar – if not even stronger – effort is the non-technical work required to a municipality in order to put such an architecture in production as an offered service to citizens.

A common misunderstanding of several e-gov projects has been that, once the software is ready and stable in a CD, the main part of the work is done.

Actually, the technical effort is just the top of the iceberg, after which comes the huge non-technical work.

During these past five years, the people involved in the above three projects have understood, with their experience on the field, that the main part of the work is actually the non-technical work. As a matter of fact, each software containing an offered online service requires an incredible amount of process engineering work, materialised through tons of meetings with offices, citizens that will test the service, citizens associations doing intermediation, as well as top management of the municipality.

To approach such a complexity, the City of Florence decided to:
• create a far reaching Service Center (county-wide) as an instrument both for the management of the front office and for the supply of e-government services;
• work on technological infrastructures: cleaning and integration of data banks, updating of back office software, computerized recording (document numbering system), a state-of-the-art Gigabit optical fiber network, etc.;
• reorganization of working processes, adjustment and updating of skills and abilities of personnel.

Working process were analysed with the purpose to introduce computer technology in all branches of the organization, and to use it in working processes in order to obtain the maximum efficacy and efficiency. The idea is to revise times and courses of action, considering also the value and precious help which arise from the possibility of making use of computer technology. At the same time, a great value is given to the improvement of technical and cultural skills and abilities of personnel.

To promote such a process, the e-gov and innovation targets were introduced within each internal Department annual objectives.

Inter-departmental management committees have been created to periodically discuss, monitor and share information useful for the achievement of the assigned innovation objectives.

For each new interactive online service that is activated in the infrastructure, a specific organizational process is activated, which implies the following activities:
• a particular set of citizens is informed of the service, and they are asked to test the new service for the first months;
• if the service is not to be tested, media are informed of the service activation;
• the call center and KMS are informed of this new service activation, and are prepared
to answer to citizen requests by the available multiple channels;
• specific e-mail help-desks are activated;
• the online service is connected to the corresponding back-office, and the respective
operators are trained to receive practices delivered via the front-office.

The current scenario

The three main e-gov projects are no longer projects, they are a settled reality.
The City of Florence made the choice to use such an architecture to offer only really-
advanced services. Hence, informational services are offered online through the typical
portals that were online since 1996. However, really innovative and challenging services
were offered since June 2007 to citizens, allowing architects and construction engineers
to send applications for works directly to the Municipality legacy construction permits
information system. Parents enrolled their children to the primary school, or to summer
camps. Citizens paid local taxes through PEOPLE, thus sending the payment data directly
straight to the legacy system. Offices are now qualifying their databases through BDPI,
before offering the corresponding online PEOPLE-based service, thus minimizing the
impact of incoherent data from different database.

Not only the municipality of Florence had benefits from this architecture. The e-Firenze
and PEOPLE infrastructures are currently already efficiently adopted by other three
municipalities in the county of Florence, which are now offering authorisation and
permits services through the same PEOPLE engine used by Florence. Many other
municipalities in the county area will follow this trend.

The above projects have finally boosted a very powerful county-wide innovation process,
through which neighbouring municipalities sharing e-gov infrastructure find themselves
to share also data dictionaries, and the way processes are re-engineered to fit them to
new e-gov requirements.

This technological and organizational infrastructure will mainly make it possible to offer
to citizens, professionals and businesses the more appropriate and personalized answers
to their different demands and needs, at the same time improving employee skills and
abilities.

This innovative infrastructure is involved in a continuous transformation and evolution
process, which currently deals with the following projects:
• an organization-wide document management system, making it possible to eliminate
paper duplicates of documents, and to store digital documents in a more optimised way;
• a nation-wide project aimed at defining a platform for monitoring and visualisation of
qualitatitive and quantitative data related to the offered services;
• a nation-wide project aimed at the provincial integration and mutual exchange of data
pertaining buildings and constructions repositories.
Integrated State Information System of Latvia

Minister for Special Assignments for Electronic Government Affairs, Latvia

In January, 2006 was started development of Latvian State e-Government e-Service Infrastructure Development Project (the customer and provider of the system is the Secretariat of Special Assignments Minister for Electronic Government Affairs (SSAMEGA)) – Integrated State Information System (ISIS, Latvian abbreviation IVIS). The infrastructure is already accessible for E-Service designers and developers since the middle of 2007. The first e-Service (available on Latvian government e-Service portal – www.latvija.lv), which is integrating four significance state registers, is released February 1, 2008.

Introduction

Electronic service development and state electronic government implementation is one of priorities almost in all the most developed countries of the European Union and the world, Latvia included. It is very important that e-Government and integration process would occur not chaotically, but unitarily. Preceding decade could be considered as time, when primary data registers were created. The new decade, evidently, will be oriented on these registers integration, offered services electronization and their accessibility for inhabitants. In ISIS system are included and used some original solutions. These solutions are discussed and presented further in this paper.

1. Principles of ISIS Creating

The time, when in the integration process was applied principle ‘each system is to be integrated with each other system’ had gone, and today this approach is not acceptable, because it’s a technological deadlock. Information is stored in data bases, which number continues uninterruptedly grow. Data base realization technologies are different; therefore, if there are not used technologic platforms independent integration methods, technologic compatibility problems often appear. Communication infrastructure, which is used for information exchange, is in different technical condition and does not guarantee uninterrupted connection. The integration software should be able to process situations, when communication channels become very slow or inaccessible. This situation determines the choice, offering a definite technologic solution, which is based on the following principles:

- Integration technologic standard should be prevalent, i.e. independent of different software technologies.
- Integration standard should be based on the best world-scale experience and correspond to standard, which is accepted and developed by international level IT companies at present time.
- Integration software should be scalable: have possibility to increase its performance without complex reprogramming work, in fact, decreasing “down-time” to minimum, because the infrastructure of this software will be the basis for the e-Service implementation, and in the future is planned, that service electronization and use intensity will grow.
• Integration software should have guaranteed development perspectives by the producer.
• As the integration software will simultaneously be the environment, in which e-Services will be developed, there should be a possibility to modify e-Service or to make it from the beginning, putting in as less programming work as possible.

ISIS solution includes best practices of similar e-Government integration approaches which are, for example, in Denmark [6], UK [5], New Zealand [2], Hong Kong [13], Estonian [18] and elsewhere.

2. Description of the Solution

ISIS ensures a possibility mutually integrate state and municipal information systems, which now or in the future will be providers or recipients of various e-Services including numerous portals, from which e-Services will be accessible for inhabitants. Not only state or municipal institutions will take part in the development of the e-Services, but also commercial institutions, for example, banks, which will be necessary to involve for paid e-Services realization.

ISIS solution is based on the following principles and it conceptual description is shown on the Figure 1:
• The use of Service Oriented Architecture (SOA).
• The solution technologically supports the integration with numerous e-Service providers.
• Identification standard, which provides world scale unique number assignment.
• The use of state level unified standards for e-Service and integration projects development e-Service – XML schemas development standards [18], IS service development standards [8], e-Service development standards [4], SOA standards.
• Four centralized catalogues development – XML schemas catalogue, IS service catalogue, e-Service catalogue, and public services catalogue.
• Common use e-Services and IS services are technologically accessible from many access points – state and municipal portals, institution home pages, etc.
• Use of e-Service envelope, when implementing asynchronous e-Service.
• Safe mailboxes providing for office workers and inhabitants with possibility perform tasks, which are provided by e-Service during implementation process.

Figure 1. Logical schema of solution basic elements
Registers are related to integration software. For each data object, which is required for e-Service realization, it is necessary to work out XML schemas set. This process is regulated by the corresponding standards and guidelines and is used for XML schema basic objects and types description. Data call from the corresponding register is performed by Web services help (in ISIS context these are named as IS services). During IS services calls occurs metadata sending, which describes the call. With the metadata register provider will receive the information, which is necessary for him to fill in his system's audit notes about a specific request. IS service development and using also is regulated by a corresponding standard. IS services are divided into two groups: Business IS services (includes some specific business activities, for example, get inhabitant’s first name and last name by the personal code) and Integration IS services (includes some other Business IS service calls and e-Service business logic). Implementation of Integration IS services usually is provided by the BizTalk server – one of the basic e-Service infrastructure parts.

Further in the paper is given a description of conceptual designing, basic elements upgrades and innovations, which are used in ISIS realization.

2.1. ISIS System Conceptual Model

E-services implementation platform form several components (see Figure 2):
- External portals and applications, which form:
  - E-services presentation layer.
  - External services and business logic libraries.
- ISIS infrastructure, which form:
  - Request service.
  - ISIS infrastructure help IS services.
  - Integration IS services.
  - Orchestration IS services.
  - Business IS services.
- Authentication and authorization information providers: ISIS users and user group management module (UUGMM), state portal inhabitant accounts, JSC Latvia Post secure digital sign.
- ISIS applications.
- State and municipality IS.

![Figure 2. ISIS system conceptual model](image-url)
2.1.1. External Portals and Applications

External portals and applications are: Latvian state portal (SP), Riga City Council portal (RCCP) and others. Latvian state portal provides for inhabitants special user accounts, which, using ISIS services and ISIS authority worker work place (AWWP) application, provide interface to text messages, work tasks, status information of specific e-Service instance in implementation context.

2.1.2. ISIS Infrastructure

ISIS infrastructure is software, which for external portals and applications provides e-Service implementation environment and access point to service, state and municipality IS services. ISIS creation primary goal is to realize environment, where it will be possible quickly and with less of programming work create e-Services.

2.1.2.1. Request Service

ISIS Request service is unified interface to another IS services and components. Request service is accessible as XML Web service. It provides according methods for synchronous (SubmitSync) and asynchronous (Submit) requests, sending to these methods request (IVISRequest) in envelope form [10].

2.1.2.2. Integration IS Services

Standardized information system approach kind, which provides external interface to information resources (state and municipality IS). Previously created IS services and integration tools are offered to developers for repeated use. That eases composed IS services development using BPEL as a base.

ISIS integration IS service usually consists of two parts: server side and client side. Server side – IS service realization on institution side (realization kind selection is in institution competence; preferable (but not obligate) interface describing desideratum standard is WSDL); client side – standardized IS service interface realization on ISIS infrastructure side (provides necessary audit and control). By this way became possible to use already existed organization exchange environment and security facilities and not necessary to build up a brand new interface. There are two kinds of IS services:

- Synchronous IS services.
- Asynchronous IS services (usually are implemented by BizTalk).

2.1.2.3. Orchestration IS Services

Orchestration IS service coordinates implementation, which defines business process – e-Service or composed IS service. Activities, which systems execute, are realized in coordinated form accordingly to process models. Orchestration IS service realize process firing accordingly to business events (business IS service calling counting), sends messages between processes, gets status information about activities and, if needed, requests human involvement. Usually this is implemented by BizTalk and is asynchronous.
### 2.1.2.4. Business IS services

Business IS services make activities only with business transactions, which are related to specific life situation or checking and are widely used to all e-Services. Business IS services is possible to call only within ISIS infrastructure.

### 2.1.2.5. ISIS Infrastructure Help IS Services

ISIS infrastructure help IS services:
- **Security token service (STS).** Security token service is used by all centralized external and internal applications, services and portals and is based on WSE 2.0 [17]. In the future it is planned to use WSE 3.0 [17] for this task.
- **System journal service.** This service is used by ISIS applications and IS services to register system errors.
- **Audit journal service.** Internal service, which is used by ISIS applications and IS services to register the information about system user activities.
- **Process state service.** Internal service, which is used by ISIS request service to register milestone execution, which is reached by e-Service.
- **Notification service.** It is used to send messages to inhabitants.

### 2.2. ISIS Identification Standard

By analogy with e-GIF, AGLS, and other e-Government initiatives about metadata standards [12], Dublin Core (DC) elements set [1] was used. Additionally, XML schema was provided for checking metadata elements [9].

The second part of standard provides identification system implementation, which is based on IETF RFC2141 [14]. Analyzing existent possibilities for resource identification, unique identifier delivery schema was created accordingly to URN principles, which are regulated by IETF RFC4617 [11]. ISIS assigned identifier (by URN syntax it is called as number) is written as follows:

**URN:IVIS:100001:DOC-RCM-META**

ISIS system’s unique identifier inherited all of URN standard’s advantages, among them:
- **Structured formation.** The identifier has a definite structure (XML schema form as well) and its automated control is possible.
- **Readability.** The identifier is understandable and usually includes for persons understandable directions to it originate resource.
- **Uniqueness.** The unique identifier is used for information unit unequivocal identification (XML schemas, documents and standards, ISIS IS services, e-Services and e-Service instances).
- **Stability.** ISIS identifier remains unchangeable from the moment of its creation up to the moment when it is deleted. It is possible to delete ISIS code, if it is useless (nobody uses it or will not use).

URN identifier extension infrastructure has not yet been created on a world scale. Global URN identifier extension system will be a two-stage process. There will be a global identification register created (“identifier space”), which will be able to find national, international or any other server, which contains information about registered URN and
is responsible for information with a definite NID (URN schema). To such server will be redirected query to get identifier extension.

Dublin Core metadata elements set [1] is widely used in ISIS. Its primary use is to describe context of XML schemas, IS services etc. Besides of that, there are two important tasks, where these metadata is used:

- XML schemas search and hierarchical structure browsing mechanisms.
- ISIS URN resolution.

### 2.2.1. XML Schemas Search and Hierarchical Structure Browsing Mechanisms

XML schemas count in XML schemas catalogue is running to grow, that’s why XML schema search mechanism was created.

Each XML schema, which is registered in ISIS system, has metadata section, which describes this XML schema and which consists of elements set. This elements set is defined by DC standard [1]. This kind of XML schema search allows find XML schemas by these metadata section elements.

XML schemas metadata section is primary devised to software developers. It describes XML schema context in user understandable language.

For XML schemas developers more important to know XML schema’s structure, that’s why XML schema hierarchical structure browsing mechanism was created. This mechanism retrieves from XML schema:

- Other XML schemas hierarchies (import) list, which are used in XML schema.
- These XML schemas hierarchies (include) list, which are used in XML schema.
- XML schema elements list, complex types list, simple types list etc. Each XML schema element, complex type, simple type is described accordingly to W3C standard [16].

### 2.2.2. ISIS URN Resolution

There are a lot of functions, which are executed using ISIS URN, in ISIS system. By ISIS URN is possible to get information about ISIS entity (XML schema, IS service, e-Service etc.) to which this URN belongs. This information is metadata about specific ISIS entity. Metadata is based on DC elements set [1].

At present time only one authority (SSAMEGA) issue such kind of URN to ISIS entities. In the future it is planned, that any authority will be able to issue ISIS URN according to agreement. This leads to the situation, where all important state entities will have globally unique identifier at state level – ISIS URN. All inhabitants will be able to get information about entities (resources), which provides specific authority. For this purpose it is planned to create ISIS URN resolution service.

ISIS URN resolution form several components (see Figure 3):

- External portal and application. Web application for users. This application organize ISIS URN input and by this URN metadata output.
- Business logic library. Specially created library, which by ISIS URN determines, which authority IS Service to call. Authority IS service returns metadata about identified entity with ISIS URN.
• Authorities IS services. Specially created services for retrieving metadata about entity by ISIS URN.
• Authority data bases. Repositories with data (metadata) about authority entities.

Figure 3. ISIS URN resolution

2.3. United Standards of e-Services Development

There is a set of development guidelines and standards provided for e-Service designers and developers, which includes:

• XML schemas development guidelines [18]. There is XML schema execution guideline document developed. Document is based on the XML schemas development standard of Great Britain [3]. It offers specific recommendations and advices for creating XML schemas for ISIS infrastructure project. Formulating XML schema execution requirements, attention should be paid to such common aspects: XML standard description language, message design, and object-oriented approach. Development guidelines additionally regulate XML schema life cycle ISIS – its addition, editing and publishing in XML schemas catalogue.

• IS service development standard [8]. IS service standard describes fields names, appropriate data types as well as field obligation, necessary instructions and requirements for IS service registration in IS service catalogue.

• e-Service development guidelines and standard [4]. There are requirements for developers, which are necessary to observe, when developing new e-Services. There are all necessary steps described in the document for e-Service technical implementation ISIS. e-Service development guidelines ensure a unified approach for e-Services development.

Creating specific IS services and e-Services, there are also “close-to-the-platform” (.NET, Java) development guidelines and standards developed, which are already used by project engineers and programmers.

2.4. Re-availability of e-Service Components

One of the main ISIS achievements is a possibility of XML schemas, IS services re-availability in some services or integration processes. For example, to provide some services, it is necessary to check on whether a document has not been registered in the Invalid Document Register (IDR). That can be implemented with IS service, which links to
the Ministry of Internal Affairs Information Centre IDR and by document’s number finds out its status. In its turn, this service is used in Document Checking Service implementation as a basic service.

2.5. Asynchronous e-Service Implementation

E-service implementation ISIS includes two upgrades in asynchronous e-Service operations (see Figure 5):

• E-service envelope, which includes all the information, which is related to e-Service instance implementation. This means, that e-Service instance data goes through the system and the envelop perfects itself with each e-Service step. Therefore, it is always possible to find the last actual e-Service implementation status.

• For office workers and inhabitants safe mailboxes providing with a possibility to solve tasks, which are provided by e-Service during its execution process. This provides for office workers (when e-Service execution process is not included in the “back end” system of the institution) and inhabitants a possibility to take part in the e-Service rendering process with specific task solution.

![Figure 5. Asynchronous e-Service execution process](image)

Conclusion

The aim of e-Service infrastructure creation is to implement an environment, in which it would be possible quickly and with minimal amount of programming work to implement e-Services.

The created infrastructure of e-Services provides:

• Increased quality and accessibility of state and municipal services (increased convenience and time economy for clients).

• Increased efficiency and examination of state and municipal institution activities (rational use of state and municipal funds).

• Ensured, advantageous and convenient service delivery procedure for clients.

• Ensured service accessibility, using various service delivery channels, which are appropriate for each client, such as ports, customer care centers, telephones, Internet, etc.
E-service infrastructure implementation prognosticates positive results, such as:

- Possibility to decrease total state and municipal expenses in IT sphere by implementing centralized services and solutions.
- Possibility to increase new projects integrity and compatibility by implementing centralized infrastructure.
- Possibility to improve management and coordination of national IT system development.
- Possibility to provide individual services independent development by implementing common standards.
References

Sponsors
The new e-Government perspective of Lazio Region: "iLazio2010 - From e-Government to Knowledge Society"

Lazio Region

Lazio Region is committed to developing a targeted strategic plan for the Information Society, that represents a useful reference tool for elaborating adequate support policies, taking into account the recommendations of the European Institutions and the goals to reach by 2010.

The challenge Lazio Region wants to meet is developing ICT solutions and organizational models that support a Participative Society, in which public, private organizations’ and citizens’ interests are harmonized with those of the social and economic systems and the community.

iLazio201 aims at:

- Simplifying the relation between citizens and the regional Public Administration.
- Supporting, through ICT, the socio-economic development in order to create value on the Regional territory.
- Strengthening communication infrastructures.
- Reorganize the regional Public Administration system.

iLazio2010 is based on the following principles:

- Economical, social e cultural harmonization through the use of new technologies.
- Participation of all citizens in the social, cultural, production and decision-making process.
- E-government services provided by ICT.
- Transparency and Effectiveness of the Public Administration.
- Support to the sustainable economic development.
- Inclusion of all citizens in the community process.
- Knowledge Sharing.

The objectives of iLazio2010 include the following:

1. **Bridging the digital divide**

   a. *The territorial divide*: Lazio Region wants to cover the entire regional territory with broad band connexion through optic fibre for the accessible territories and through wi-fi, wi-max and satellite connection for those territories that are difficult to access.
Fast connection will be guaranteed not only to Local Bodies, but also to citizens, universities, Research Centres, Science and Technology Parks, Local Health Units and Hospitals as well as to all PA decentralized premises.

b. The dimensional divide (among Public Bodies and small and large stakeholders): Lazio Region will contribute to the development of social and economic environments, through the Digital Business Ecosystem approach, where also small stakeholders will have the opportunity to participate in the economic development processes.

c. The cultural divide: basic training on ICT use will be provided by Lazio Region both to Lazio citizens and to Public Administration employees, through a “training on the job” approach, no more theoretical. Multi-channel systems will be used to involve those citizens who, for various reasons, cannot attend training sessions.

d. The digital divide: bridging the digital divide means giving free access and free circulation of ICT resources. This means promoting the adoption of free and open source solutions able to overcome knowledge barriers.

2. Knowledge Diffusion

A real knowledge Society is achievable only if all active territorial actors (citizens, SME, Local Bodies, stakeholders, etc) have not only a basic knowledge of ICT, but they should be able to know how autonomously develop their knowledge through new technologies, and together can participate in the creation of new knowledge. Lazio Region, aware of the human and social capital present in the Region, will carry out new actions aimed at developing it.

3. Active participation of all citizens in the local decision-making process

Lazio Region is committed to involving all citizens, entrepreneurs and local stakeholders in the PA legislative processes. In order to achieve this objective, Lazio Region will implement democratic participation services, through which these actors can take part in the definition of those policies that involve them directly.

4. Innovative Service Provision

The provision of innovative services will improve the effectiveness and efficiency of the Public Administration, bridging the social and economic gap in the rural areas.

5. Procedures Simplification

Lazio Region has already started a general reorganization of the service provision system for citizens and companies. It is also studying new procedures that ensure equal opportunities, higher transparency, effectiveness and efficiency of the Public Administration. This process will take into account advanced researches developed on an international level.

The main goal of Lazio Region is networking all citizens and developing a networked society based on the communication interconnection, where everyone is networked and has equal opportunities to access and produce services as well as to choose his/her favourite connection channel and to participate in the administrative and production life.
This scenario will lead to a new meaning of social relations and production mechanisms as well as facilitate the breaking down of those hierarchies based on information and knowledge storage and non-sharing.

Three main action lines have been underlined in iLazio2010:

1. **e-Inclusion**
   - Broadband access to the Internet.
   - Digital literacy.
   - Access point networks.
   - Accessibility.
   - Multi-channel delivery.
   - Security.
   - Digital ecosystems.
   - e-Democracy.

2. **e-Services**
   - e-Government.
   - e-Health.
   - e-Learning.
   - e-Business and eCommerce.
   - e-Procurement.
   - Document digitization / historical archives.

3. **e-Simplification**
   - Process re-engineering in Public Administration.
   - Reorganization of administrative procedures in the digital environment.
   - Interoperability.

**iLazio2010 elaboration Governance**

The various resources characterizing Information and Knowledge Society requires the development of governance processes and a more effective coordination among various sector policies.

Issues and initiatives included in the Strategic Plan need to be discussed among the technical and institutional bodies of the Region.

Lazio Region is developing a structured and inclusive dialogue with the various actors (internal and external to the Region) to be involved in the Strategic Plan, in order for them to take advantage of the initiatives implemented.

For the development of iLazio2010, Lazio Region is already started to organize participative processes with the aim of sharing the document with public and private organizations interested in being involved.

The governance of iLazio2010 elaboration is divided in:
- an **internal process** (within the Region) which will include and harmonize those needs and actions coming from the various Regional Departments;
an external process (outside the Region) through which Lazio Region will involve all institutional, economic and social actors of the territory. The external governance process also foresees meetings with European Institutions, national government and other Italian Regions with the purpose of comparing solutions and “best practices.”

Some relevant Lazio Region Projects and initiatives in the scope of iLAZIO2010

“SemplificAZIONE”: modernizing the Public Administration

Last December 12th 2006 the Regional Ministry for Consumer Protection and Administrative Simplification presented the initiative “SemplificAZIONE 2006.”

Lazio Region Executive Council invested 1,500,000 euros to aid local authorities in the development of e-government solutions to simplify administrative procedures and make life simpler for citizens and businesses.

Mario Michelangeli, Regional Minister for Consumer Protection and Administrative Simplification, together with the representatives of the five provinces involved in “SemplificAZIONE 2006” signed the agreements kicking off the co-financed projects.

“Semplificazione 2006” is unique for its rapid implementation: 12 to 18 months from the signing of the Agreements to the end of the project. Local government response was significant, in fact Lazio Region received 12 projects, 11 of them passed the first stage and 7 were co-financed. All the five provinces were involved. Results emerged during the preliminary assessment highlighted the need for redesigning internal organization process and technical equipment. Outcomes will form a catalogue on regional e-Government demand that will be the reference point for further initiatives and re-use projects.

This initiative represents the beginning of a process aimed at developing a citizen-friendly Public Administration, through initiatives aimed at reducing bureaucracy times and costs faced by citizens and companies. The initiative established a new dialogue between the Regional and local governments.

These are the projects co-financed by SemplificAZIONE 2006:

- **WANlib**: Province of Frosinone.
- **Casa Informa**: Province of Frosinone.
- **LE.O**: Province of Frosinone.
- **U.P.R.** (Ufficio Provincia Reingegnerizzati): Province of Latina.
- **Pro.DE**: Province of Rieti.
- **Semplifichiamoci**: Province of Rome.
- **Pro.Digi**: Viterbo.
POS: Health online

The new Lazio Region Health Portal (POS, url: www.poslazio.it) is online since December 30th, 2006.

The portal lays the foundation for a change in health communications. Its main goal is to build a network for information exchange among the health sector, including professionals, organizations of citizens, volunteers and for citizen protection.

A multi-channel personal assistant, close coordination amongst health institutional websites, and tailored services to suit citizens, health professional and companies needs: these are the strategic tools that brought about profound changes in the way information and health services are provided by the regional government.

POS was developed to create a user-friendly system which may help citizens and health professionals understand the composite health sector. Starting from the assumption that health institutions are a valuable source of information to put online, the project includes the implementation of a Lazio Region health care portal.

The development of a health portal is the coherent response to the development of a modern region that wants to carry out an information policy ensuring transparency and citizens participation in the public decision-making process.

RELAB

The project was developed by Lazio Region for the audiovisual industry. Thanks to the use of grid computing technologies, RELAB provides Lazio audiovisual companies with powerful solutions aimed at reducing and maximizing video rendering time.
Developed by LAit (www.laitspa.it), Relab is designed to provide Lazio audiovisual companies with an access point to infrastructures and grid computing services – to improve and reduce video rendering times. The project received 1,300,000 euros in investments co-financed by CNIPA (National Centre for Informatics in Public Administration), CIPE (Interministerial Committee for Economic Planning) and the Regional Ministry for Administrative Simplification of Regione Lazio.

The use of grid computing allows to reduce rendering times by taking advantage of many networked computers to model a virtual computer architecture that is able to distribute process execution across a parallel infrastructure. RELAB will enable Lazio production and post-production companies to exploit the computing power provided by this tool which would be otherwise inaccessible for their budgets and to compete at international level.

**T-Informo**

T-informo is the experimental t-government service developed by the Municipality of Rome and Lazio Region in co-operation with RAI, Telespazio, University of Rome “La Sapienza” and LAit S.p.A., Lazio region government-owned corporation.

Co-financed by CNIPA (Italian National Centre for ICT in the Public Administration), T-informo provides contents and services accessible through TV to all citizens who have a digital terrestrial decoder at home. The project aims at bridging the “digital divide”, involving those citizens who are not very confident in using Information Technologies and, for this reason, cannot participate actively in the Public Administration renewal process.

The T-Informo project wants to make the digital terrestrial television the perfect tool for strengthening the relationship between citizens and the Public Administration, being characterized by transparent and user-friendly systems.

On November 8th, 2006, during the Com-Pa, the annual Exhibition of Public Communication, the T-informo project was awarded the prize “La Pubblica Amministrazione che si vede – La Tv che parla con te” (the PA you can see – the TV that talks to you”. The competition, announced by Formez (Training and Study Centre depending from the Public Administration Department of the Prime Minister’s Office) was presented by Luigi Nicolais, Minister for Reform and Innovation in the Public Administration.

The prize was awarded with the commentary: “The examined product represents a best practice to reuse for what concerns the comprehension and promotion of new interactive services through an emerging technology such as the digital terrestrial television.
The design and the animation help citizens to understand the provided services and how to use the application. The involvement of all main local stakeholders of Lazio makes T-Informo a value-added service. The layout is pleasant and well studied.

Interim Conference on Interoperability in the iGovernment

The first European Summit on Interoperability in the iGovernment was held from 22 to 24 November 2006 in Valencia. The event - supported by the European Commission – was a unique opportunity to discuss an important issue such as interoperability which is playing an increasingly strategic role within the EU policies on eGovernment.

ESIIG I will take a step forward in Rome next 11 and 12 October with the Interim Conference on Interoperability in the iGovernment (www.towardsesiig2.it). The event is organized by Lazio Region - Regional Ministry for Consumer Protection and Administrative Simplification.

The main objectives of the Conference are the following:

- Enhancing and supporting good practices and knowledge sharing in the field of Interoperability in the iGovernment according to the priorities expressed in the Interoperability Declaration of Valencia presented during the First ESIIG.

- Analyzing the state of the art of the initiatives promoted in the Interoperability Declaration of Valencia, especially the creation of the European Regional Network for Interoperability (ERNI).

- Involving national, European and international stakeholders and administrations in the organization of the Second Summit on Interoperability in the iGovernment, expected to be organized by the Lazio Region in 2008, in order to represent as much as possible the reflection of European Regions needs in the field of Interoperability.

The Interim Conference will bring together a high-qualified institutional audience from Public Administrations across Europe together with experts and academics in the field of interoperability.

It will be a unique opportunity for best practices sharing and an advantageous chance to submit successful initiatives to the attention of European Public Administrations and to those European Commission bodies competent in the field of interoperability. The event will also be an unrivalled chance to discuss and share common objectives together with representatives from European Institutions competent in the field.
Istituto Poligrafico e Zecca dello Stato S.p.A.

Istituto Poligrafico e Zecca dello Stato S.p.A. (IPZS) has always represented the Italian Government Printing Office in the past, but now has become a more complex reality, with high quality digital products such as Electronic Passport and paperless suites. The Information Technology and Telematic Production Department manages the company’s IT, and even more. Recently it has become the main actor on the distribution of legislative databases on Italian web sites and currently implements and manages many integrated services for public administrations and general users. The latest challenge is to promote new instruments for open-source paperless office management, and to make them suitable for all working realities. In this scenario, the use of markup languages and workflows to produce digital publications available both for digital products (web, CD) and for printed books has been widely developed. Every new solution provides the use of digital signature for documents and certified electronic mail according to CNIPA standards.

Service Kit
The original open-source suite for paperless office management.

- **DoMoss - Document Management Open Source System**
  Evolved solution for the full paper document flows management; it ensures:
  - electronic document registration (in line with the guidelines specified by CNIPA, the Data Protection Authority and the Digital Administration Code);
  - file management (e-files);
  - document workflow management;
  - interoperability with CNIPA standards;
  - substitute filing.

- **Hi-Tech Redaction**
  Hi-Tech redaction is an evolved remote redaction system that enables to generate editorial products based on markup templates, giving the possibility to immediately produce and preview publications containing text and images. Several output formats are generated by just one input: a printed book, a database, a web service.
  This product can manage all redaction steps according to the specific redaction.
  Hi-Tech Redaction is also used to produce the Digital Telematic Official Journal published in Modus – Telematic Official Journal and Guritel Database described below, and the official printed version.

- **Digital Editing Kit – De-Kit**
  A powerful and integrated tool to manage documental work flows.
  All official forms are standardized, optimized, coded and digitalized; the final output is a pdf document that can be edited and fulfilled using De-Kit.
  It is possible to apply a digital sign, a digital stamp, and to send it by Certified Email. It’s also possible to publish it on a web page.
  Documents can be distributed on a virtual notice board that can be referred by authorized users.
**Integrated Services for Government. Modus System**

In partnership with the Ministry of Economy and Finance, Modus System features different series of integrated services for Government and the general public as specified below:

http://www.sistemamodus.it/

- **Modus - Electronic Forms**
  Based on b2b transactions, this portal collects all government forms while ensuring the necessary supervision and control activities, performed by the ministry.

- **Modus - State Organs**
  This portal features the entire organization of public structures updated in real time and provides a further series of integrated web services for targeting civil servants, such as certified emails.
  http://www.organidellostato.it

- **Modus - Virtual Library**
  This project target is a virtual library that contains all government publications, automatically updated.
  http://www.bv.ipzs.it

- **Modus - Seniority Database**
  A database featuring the IT structure of all public personnel.
  http://www.rda.ipzs.it

- **Modus - Telematic Official Journal**
  The institutional site that publishes the latest 60 issues of Gazzetta Ufficiale Italiana (Italian Official Journal), free of charge.
  http://www.gazzettaufficiale.it
Web Portals

New products

- **Portale Normativa Sanitaria**
  Developed for the Ministry of Health, this portal publishes legal and administrative database acts concerning welfare issues, dating from 1948 until today. It contains over 26,000 acts and its consultation is free of charge.
  
  [http://www.normativasanitaria.it/](http://www.normativasanitaria.it/)
• **Portale Numismatico dello Stato**
This portal contains the Ministry of Cultural Heritage Activities Numismatic Bulletins and offers powerful search engines to navigate through its contents. One section is dedicated to numismatic collections in Italian territory, with information about museums and competent government organizations. Other pages provide legal and Ministry numismatic activities information.  
http://www.numismaticadellostato.it
Other products

- **Tutela Mare**
  This sea protecting portal, developed for the Ministry of the Environment, features a series of interesting topics related to services for public users. It includes an environmental monitoring system, based on intelligent webcams, capable of streaming images via the web and of sending out automatic alarms, with respect to suitably mapped and structured events (i.e. unauthorised entry into marine protected areas).

  [http://www.tutelamare.it](http://www.tutelamare.it)
• **Si.Di.Mar.**

This portal contains the scientific database of Tutela Mare, the protecting sea portal, customized for a specific and scientific target. Si.Di.Mar. database provides a complete and coordinated overview of the condition of the Italian seas and coastal areas, considering both the related ecological conditions and the anthropic, economic and industrial activities affecting the coastal areas above and under water.

It displays, through the GIS (Geographical Information System), information relating to:
- marine environmental data (DAM);
- distribution of alien organisms in the Mediterranean;
- coastal mapping of the posidonia oceanica beds in Italy;
- position, zoning and borders of the existing marine protected areas;
- Cetaceans and marine tortoises beaching in Italy.

[http://www.sidimar.ipzs.it/](http://www.sidimar.ipzs.it/)
- **Portale Acque**
  With the partnership of the Ministry of Health, this portal aims to provide a search engine web tool constantly updated in real time. It contains quality data related to drinking water, bathing water, mineral water and spa waters. A complex editorial workflow system feeds and certifies all the contents, allowing stakeholders to be responsible for the updating process.

  ![](https://example.com/portalacque.png)

**Telematic Official Journal - Gazzetta Ufficiale’s databases**

- **Guritel**
The circulation of public databases by Istituto Poligrafico e Zecca dello Stato S.p.A. has been formally acknowledged by Ministry of Treasury’s decree in 1993. Since then, the company designed a fine markup document management system working daily to provide complete, timely and easily accessible information to web users. Guritel consists in various databases relating the following lines:
  - The Official Journal of Italian republic.
  - Commercial databases.
  - Professional trade associations.
  - The Official Journal of European communities.
  - Tendering procedures.
  - Pharmaceutical databases.
  - Tax databases.  

  [http://www.guritel.it](http://www.guritel.it)
Legal web magazines

- Foroeuropa
  This portal is a useful review of Community Jurisprudence law and European law. Structured in subject areas, it helps first time visitors to approach these themes. Case Law Area contains sentences and European Court of Justice and the decision reached at the initial level of the Court System. Legal Science Area contains both science discussion issues and articles. Document Area contains various documents selected by its editorial staff. News Area provides a sort of overview of issues and interesting subjects that will be featured in the next edition. Events/Conferences area provides an overview of scientific and institutional issues of community interest.

http://www.foroeuropa.it
• Rivista della Corte dei Conti
In collaboration with Italian Corte dei Conti, this site publishes the contents of its printed review with the most significant norms issued by this public institution. It also contains articles and technical documents written by magistrates and experts.  
http://www.rivistacorteconti.it

• Giustamm
The journal, published by Istituto Poligrafico e Zecca dello Stato S.p.A. since July 2000, is a fast and complete research web tool in the administrative law sector. The front cover features news published every month by judicial bodies, regulatory bodies and administrative law authors. Additionally, a database contains all major documents about this theme issued since 1996. The journal is updated daily with statutory instruments, judgements, legal theory comments, and with rich articles on various subjects, reports, reviews, monographical papers and any important related information. This review is awarded with the XVIII Eugenio Selvaggi Prize as the best public law journal on the web in 2007.  
http://www.giustamm.it
Integrated solutions for IPZS Business

- **IOL – Inserzioni on-line**
  This is an integrated web system to manage advertising announcement of Gazzetta Ufficiale Parte II and Gazzetta Ufficiale V Serie Speciale – Contratti pubblici, both Italian Official Journals.
  The initial environment records the publication request of an online announcement, according to the following steps:
  - Reception of announcement request by a web form.
  - Validation of announcement.
  - Typesetting of its text.
  - Approval for printing.
  The next application environment produces the sale order, manages the deliveries of the free copies for the advertiser, the billing, it produces the payment recording and the related account balancing.

- **Institutional Commerce**
  Fully integrated with the company ERP, the B2B I-Commerce portal has been realized to promote IPZS products, such as rubber stamps or school report forms.

- **E-Commerce IPZS Editorial Products**
  This web catalogue, using the B2C Channels, is a powerful and integrated service to promote IPZS institutional editorial books.
  It offers credit card payment, a multilingual access and it’s completely managed by IPZS ERP system.

  [http://www.editoria.ipzs.it](http://www.editoria.ipzs.it)
EuroSpace S.r.l. formally began in 2001 as an initiative by Renato Lucarini, a freelance manager with a track record in industry (Stet) and about ten years in working on his own account, who decided to pool his wide experience of working with the Italian government and other major institutions around the world.

EuroSpace s.r.l. aims to work with institutions, ICT companies and the public for the best and widest possible diffusion of these contributions of information and communication, in the spirit of the following European values:

- the primary aims of ICT are social progress, quality of life, growth of job opportunities, and the commercial success of the industry;

- ICT’s growing globalisation requires a wide range of technological knowledge and familiarity with applications, and a high admixture of originality and innovation;

- economic and social development are boosted by all possible forms of cooperation between public and private bodies that can contribute high quality added value in their own areas of work;

- an interdisciplinary approach is an essential ingredient of economic, technological, organisational and application development;

- international experience and collaboration guarantee “vision”, quality, and the effectiveness of the solutions designed;

- all business activity is strengthened by full respect for ethical principles and the dignity of the individual.

To have the best possible impact in terms of projects and presence at European decision-making centres, EuroSpace S.r.l. has opened offices not only in Rome and Milan but also in Poland (Warsaw), with partners of great international experience, well established in their institutional and industrial surroundings. From time to time EuroSpace S.r.l. also brings other companies, practices and freelance experts into its scientific and design activities, where these can guarantee an excellent level of quality, for the full success of its projects.
1. Areas of Activity

1.1 ICT Systems, Services and Projects

Technical and professional performance is assured, thanks to international quality standards and with proven methodologies, featuring:

- in-depth study of the objectives, and projects implementation focusing on European key aspects;
- highly implemented innovation with focus on social;
- top quality methods for development and project control;
- co-operation of professionals with long-term international experience.

EuroSpace Srl is a specialist in the application of ICT to the social area, including both the government and its agencies (central and local) and all public and private operations aimed at improving the quality of life, the development of regions, trade, enterprise and craftsmanship (essentially, all that has been identified internationally as “the City of the XXI century in the Information Society”).

It specialises also in application solutions (hardware and software) involving mobile telecommunications and geo-referenced cartography for urban areas.

1.2 Communication Projects

To provide inspiration as “symbols”, words need to have a conceptual content richer than their usual reference; symbolic concepts can generally be better expressed in terms of dichotomy or “dialogue”. Eurospace Srl carries out work for government agencies’ communication with citizens, and private companies’ communication with government agencies: it handles the practical realities and actions involved in the following dialogues:

- **Citizen/Institutions**, requiring effective reporting back and a reciprocal collaboration to increase service effectiveness and improve service quality.

- **Public/Private** bodies, aimed at arranging shared responsibilities between these two, for effective results. This dialogue is indispensable if the aims of a national system are to be achieved; and in it the important thing is the overall result rather than immediate economic returns: it is a commitment of professionalism and skills, which often brings further forms of mutual benefit. The dialogue is not an easy one to put into practice, but is extremely useful for communication.

- **Collective imagination/Information Society**. In the present initial phase of the Information Society, it is the collective imagination which determines the image of every product and service – and hence its success. This is a complex concept, which involves bringing together the most disparate expectations among the public concerning economic development and the quality of life. The Information Society necessarily revolves around the collective imagination, and the rewards for those who know how to read and stimulate it are great.

The simultaneous “application” of these three “dialogues”, more than ever, makes important for Public Administrations to “implement communication” in institutional Fairs, where local and central Public Administrations and ICT firms jointly participate.
In such a cultural environment, EuroSpace Srl has deeply strengthened its experiences, carrying out communication projects for its clients both in the Public and in the Private sector.

2. Principal Activities

To protect the confidentiality of the government agencies and companies EuroSpace Srl is working with at present, details of operations for 2008 are not given; but below is a list of those carried out in the last few years by the three founder members (often jointly):

- **Putting on exhibition and communication events for the Italian Home Office.** Design activities for the New Voting Booth and the New Polling Station; conception, design and creation of experimental and final prototypes: functionality, aesthetics, materials, etc. Presentations to the public and the press.

- **High-profile ICT services and consultancy** for various major private companies and central and local public agencies.

- **Consultancy for SMAU in the sectors of central and local government (as sole agent).** Scientific coordination of the PubbliSmau sector, through the drawing up and carrying out of annual and four-year programmes: high-quality installations, with strong value added in terms of exhibitors’ communication. Scientific consultancy in the Telecommunications sector, with the planning of an international exhibition event specifically devoted to it.

- **Upon invitation of the Italian government, participation in Habitat II, the UN World Conference on Human Settlements, held in Istanbul in 1996.**

- **Participation, by Council of Europe invitation, to the Experts Committee on modernisation of Local and Regional Government of Strasbourg Council of Europe (2002), in order to present innovative solution of social and industrial value.**

- **Publishing of the:**

All the editions were spread according to a distribution list of 10,000 European names: Institutions, and major international firms, and printed media.
Conclusions
Improvement and innovation in the performance of the Public Administration

Renato Lucarini, Eurospace s.r.l., Italy
Patrizia Caiola, Studio Caiola, Italy

The present volume is designed as an opportunity for sharing and comparing the primary e-gov experiences matured recently in Europe. Its purpose is to offer interested readers a thorough overview of the current international situation, with the further, ambitious aim of providing that same reader with adequate know-how on the topic.

1. The modernisation of public administrations in Europe. Prospects and developments

The inevitable starting point for a well informed discussion of the process of computerisation currently underway in the public administrations of Europe is the Action Plan for 2010. Viviane Reding, a member of the European Commission, the Information Society and Communications Media, notes that: “In recent years we have begun to see the benefits of the investments made in e-Government in Europe, but we need to be more active when it comes to learning from each other and following joint strategies on the issue, because e-Government is no longer a political plaything but a key tool of government, thanks to the modernisation of the Public Administration”.

The formulation of shared objectives, therefore, is an obligatory step in the process of creating a unified production force aimed at ensuring full implementation, on the European level, of the technological innovations tied to e-Government and I.C.T.

The Action Plan for 2010 lays down the new regulatory framework of the European Commission on the sector, setting the strategic objectives to be reached no later than 2010. The document, which updates the previous edition, valid through 2006, focuses attention on five priority topics:

- No citizen left behind

The first challenge to be addressed is that of the “digital divide”. The European document brings to light a paradox, namely the fact that the very segments of society likely to benefit the most from new advances in I.C.T. have been excluded from these benefits. The objective for 2010 is to ensure that each and every citizen, with no exceptions, can benefit from these opportunities. To this end, the first path to follow is to make the services available to everyone, following parameters that have long been in place, but have rarely been applied (in Italy these are regulated by a specific law: no. 4/2204); the second direction to take is the dissemination of services by means of a number of different channels (web, mobile telephone, digital TV, fixed telephone) that make it possible truly to reach everyone.

- Making efficiency and effectiveness a reality

The purpose of e-Government is to achieve tangible results, in terms of high user satisfaction, lighting the work loads of the administrative units and increasing levels of efficiency and transparency. Given that these are objectives best pursued from the national level downwards, the added value that the European Commission is capable of
providing essentially regards two areas of activity: measurement and sharing. As far as
measurement is concerned, there are a number of different initiatives, and they are
continually being updated, which provide methods for measuring results and impacts, as
in the case of benchmarking. Examples include the **Standard Cost Model** developed in
Holland, or the Belgian **Kafka-test**, which makes it possible to assess the potential effects
of new projects of simplification on administrative costs, taking into consideration
businesses, private citizens and the public sector. With regard to sharing, on the other
hand, numerous initiatives have contributed to the exchange of experiences. A perfect
example is **ePractice.eu**, the site especially created by the European Commission to
promote the sharing of the most worthwhile experiences. Using this virtual forum, ICT
professionals from both the public and private sectors can “meet”, exchange opinions
and experiences and discuss specific cases and examples of good practices on-line. The
site also includes a special section set aside for the subject of **e-Procurement**, a topic
which, as is widely known, is one of the priorities on the agenda of the European
Commission.

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**Developing key services with a high impact**

There are certain services, valid across national borders and capable of having an
especially strong impact, which could constitute points of pride for Europe. Of these, the
Commission has decided to place priority on electronic purchasing systems (e-
Procurement), which would make possible noteworthy savings in the public sector, in
addition to assisting the system of small and medium enterprises to become more
competitive. The objective in this sense, for 2010, is to carry out on-line 100% of the
purchasing of the public administrations below the Community threshold and 50% of the
purchasing above the threshold. In addition to e-Procurement, other trans-national
services must be stressed as well, such as those involving mobility, job seeking,
healthcare, social security and education.

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**Making available enabling instruments**

In order to disseminate high-impact services, it is indispensable that certain enabling
instruments be employed, such as the “interoperable” management of identification
(eIDM) for access to public services, electronic authentication of documents and
electronic filing. Here the Commission makes a clear-cut distinction between ID cards –
useful for police security – and systems of ICT authentication, which are indispensable
for accessing on-line services. The latter receive the most attention, though, at present,
they feature a number of different approaches on the parts of various countries. The
objective is to make the different systems interoperable and to pursue full mutual
recognition. To this end, the European Commission recently launched a large-scale
program of interoperability, so as to avoid a situation in which non-uniform use of the
latest advances in I.C.T. can result in fragmentation of the unified market. For while there
is no denying that the latest developments in I.C.T. offer extraordinary possibilities, it is
equally true that their proliferation could create new barriers and obstacles to the
freedom of movement of people, merchandise and services in the E.U., should they be
implemented in a manner that is not coordinated and interoperable. Hence the need to
harmonise the initiatives of the individual countries, in order to guarantee that each and
every citizen is truly a full European citizen. In the case of the eIDS, for example, the
initiatives of the European Commission are not meant to create a single European
electronic ID card, but simply to ensure reciprocal recognition of electronic ID cards by
the public services, for all of Europe and throughout the Union. The goals of the project are to succeed in managing a wide range of implementations while developing common interoperable interfaces and authentication procedures that take into account the different systems utilised by the various member (for example, smart-card eIDs, virtual identification, passports etc.). In this way, when European citizens use these eIDs, they are able to certify their identity on their own, no matter where they happen to be.

- **Reinforcing democratic participation**

In terms of the democratic process, though the percentage of citizens voting in various elections consistently remains relatively low, citizens are increasingly well informed, and there is an implicit demand for increased involvement, tied to the need to base public policies on a broader consensus. The commitment of the Commission in this respect essentially consists of: experimentation with instruments able to facilitate transparency, along with the involvement of the public in decision-making processes; the launching of a preparatory initiative for the development of parliamentary-type systems to support decision-making processes; and, finally, the assignment of priority to e-Democracy in the seventh framework program. There is no question that the new advances in I.C.T. can make a noteworthy contribution in this sense. They offer new and efficient instruments capable of making possible the performance of full-fledged online consultation, such as forums, chats, questionnaires that can be filled out on-line, blogs etc.. By means of these tools, citizen-users can directly express their points of view, making their needs and demands known and, when appropriate, putting forth new proposals. An apt example of such an instrument is **e-petitioner**. Used by the Town of Bristol, it makes possible the creation of networks among citizens, as well as the distribution of petitions on-line; equally worthy of note is the electronic vote technology, already utilised in Estonia and in Switzerland.

The direct involvement of citizens in processes of opinion-forming and policy decision-making thus constitutes an irremovable element, to the degree that the policy decisions of government authorities, and especially those on the local level, directly effect the very citizens who, at least in theory, are being represented by the authorities in question. The **good governance** of a country calls for decision-making processes that move from the bottom up, in accordance with an ideal of active, participatory and democratic citizenship.

The creation of a direct channel of communication between institutions and citizens is also a key prerequisite for dealing with the thorny problem of the distancing from politics and their lack of confidence in politicians and institutions. As the exchange of communications between citizens and public authorities intensifies, the decision-making powers of the latter will be significantly diminished, obliging the authorities to accept a higher level of accountability, under the watchful eyes of a more participatory electorate1. In conclusion, when applied to democratic procedures, the new technologies can make a major contribution to the establishment of an “active citizenship”.

2 The **application of the new technologies to the public administration, in the interests of good performance**

The use of I.C.T. inside the public sector clears the way for an effective transformation of the very manner in which the public administrations work and interact with citizens. The renewal favoured by the technologies, in and of its own right, contributes to increasing citizen confidence and satisfaction in the institution and in the public administrations.
themselves. Specifically, the change regards the organisational structure and the operating procedures. When I.C.T. are used, it becomes possible to switch from highly bureaucratic systems to ones that are more flexible and efficient, drastically reducing the paralyzing burden of bureaucracy. The process of simplification essentially takes place through what is referred to as dematerialisation. The term, originally employed in the financial sector, subsequently became part of the legal lexicon, ultimately being used, under Legislative Decree no. 82 of 7 March 2005 (the Digital Administration Code), to refer to the gradual increase in the computerised management of documents within the public administrations, together with the consequent replacement of traditional paper documentation with computerised documents. Seen in this light, the concept of “dematerialisation” is viewed as the extension to the P.A. of the general trend, found within the private sector, towards the use of I.C.T. instruments for the automated processing of information in production processes.

The digitalisation of paper documentation lies at the base of a significant reform of the processes through which administrative activities are managed. Most importantly, it entails a noteworthy reduction in public spending, both through direct savings (paper, space etc.) and indirect savings (time, efficiency, etc.). As a rule, the processes involved in the management of documents on paper are overly burdensome, the documents themselves are difficult to share and to file, there is a lack of transparency, search times are lengthy, errors are easily made, documents can be lost or mislaid, and there are countless other instances of more or less costly inefficiency. The shift from paper to digital guarantees a reduction in the burden of processing, together with increased transparency and speed in the performance of the operations and, last but not least, the possibility of integration with other electronic sectors. The capacity for integration and interoperability of the different data systems is the value added introduced by the process of dematerialisation. The transfer of all paper materials onto digital supports, together with the resulting creation of enormous on-line archives, makes possible the construction of a veritable Network of Networks, so as to permit more efficient cooperation between the different institutions distributed throughout the territory. Noteworthy examples of such efforts include the ParER Project developed by the Emilia-Romagna Region, the DoQui Project of the Piedmont Region and the BCE, plus the e-Depot project conceived of by the ASA.

Nevertheless, while there can be no question that dematerialisation results in very real benefits, especially in terms of the reorganisation of the back-office, an element that constitutes an important prerequisite for the supply of more efficient services to citizens and companies, it also true that the transformation in question raises a number of significant problems. A distinction can be drawn between the difficulties of a more purely technical nature, meaning those tied to the characteristics of the technology employed, and problems of a more general nature involving the introduction of these technologies into the old administrative structures.

Regarding the first area of concern, the potential sources of problems can be summarised as follows:

- organisation of an effective method of authentication that controls problems of manipulation and plagiarism;
- memorisation of documents on different supports or with different formats, without the possibility of conversion from one format to another;
- the integration of multimedia messages onto a single support can result in an information overload, meaning an excess of messages, in the face of which users risk losing themselves in a maze of information;
• the resolution of problems of identity, which is difficult to maintain in the flow. The fact is that digital documents can prove instable, dynamic and easy to manipulate. This makes it difficult to ensure copyrights over content that cannot be identified with certainty.

Looking at the second set of problems, the issues become much more delicate, and potential solutions must obviously involve the application of a systematic, organic approach. While it is true that the use of advances in I.C.T. within public administrations can give rise to a full-fledged “organisational revolution”, it must also be stressed that what is referred to as the “transformational e-Government enabled by technology” is not established through the introduction of the technology alone. In order for the technological innovation truly to lead to a radical restructuring of administrative procedures, the change must be accompanied, first and foremost, by an adequate supply of know-how and skills.

The chief obstacles that can prevent and/or delay the restructuring referred to above are: a lack of the skills and knowledge needed to enact the transformation and to exploit the possibilities offered by the new technologies in full; a lack of leadership, as well as the absence of a campaign to heighten awareness and overcome the natural resistance to change on the part of the more conservative subjects; the activation of processes of learning and knowledge meant to facilitate contact and familiarity with the new technologies.

It is important that all the subjects - managers, top executives, employees – possess the basic e-skills, plus the ability to work as part of a team and independently manage themselves in accomplishing a task: all fundamental characteristics if the change is to become truly effective. Naturally, these basic skills must be supplemented by the specific capabilities that each individual within the organisation is called to master, depending on the role held. Obviously, this all entails a noteworthy investment in training and in the area of human resources. This last consideration should not be viewed as a marginal or provisional matter, but should, instead, be made a full and integral part of a consistent strategy for the management of knowledge, something that proves indispensable when it comes to achieving a true modernisation of public administrations. In any event, the dissemination of adequate I.C.T. “literacy” does not mean the task has been completed. Two very important issues remain unresolved: the first regards the period of time inevitably necessary for an effective implementation of the administrative restructuring; the second has to do with the more bothersome question of the digital divide.

In order for the level of organisational efficiency to truly to increase through I.C.T., a certain period of adjustment must be allowed for. During this intermediate phase of the process of administrative restructuring, the new electronic approach should not fully replace the traditional methods, but merely be set up alongside of them, allowing the subjects involved to socialise with the new instruments.

But access to digital information depends not only on knowledge of and experience with the infrastructure, but also on the possessing the economic capacity to access it. It is no accident that inequality in access to new information and communications technologies is an issue of critical concern in Europe. Though the new technologies, when introduced in a thorough and complete manner, can become, in an adequate amount of time and through suitable procedures, an instrument of development and knowledge, they also have the capacity, when distributed unevenly, to give rise to serious instances of discrimination and new forms of social exclusion. This explains the unanimous commitment, on the part of all the European countries, to attempt to contrast the spread of such a situation in every way possible.
To conclude, the overview proposed up to this point throws light on the fact that we are faced with a new administrative cultural, one no longer based on rigid procedures and dysfunctional formal constraints, but increasingly focussed on results and performance. Specifically, the epoch-making change underway marks the transition from an approach based on the supply of services in accordance with the needs of the institutions, to one based on the distribution of services in accordance with the demand from citizen-users. In other words, with the introduction of new advances in I.C.T. within public administrations, the supply of quality services to citizens and companies has finally become the main mission.

3. Participants in the preparation of the volume

Given the proven worth of the project over the years, as well as the praise and recognition obtained by past editions, the present volume can today count on the support and collaboration of the leading administrative, political, technological, economic and social institutions on both the European and national levels. More specifically, the current initiative involves:

- European institutions;
- the administrations of the different segments of the public sector:
  - central administrations and central state bodies;
  - authorities of government and control;
  - regions and regional institutions;
  - municipalities and municipal institutions;
- private I.C.T companies that take part in events or sponsor the volume;
- multi-professional citizens associations concerned with the scientific and social developments of the information society;
- agencies/institutes promoting European research programs.

In the interests as through an overview as possible of the topics under discussion, the volume proposes an attentive examination of the progress made in Italy, and in Europe as a whole, with regard to:

- innovative e-Government solutions implemented by central and local public administrations;
- the progress made on national and international strategies of e-Government;
- the progress made on the inter-sector approach, which represents as key ingredient of solutions and services of noteworthy national values in each country, capable of resulting in social cohesion and democracy;
- innovative solutions carried out by local public administrations to promote forms of e-Europe:
  - widespread multimedia and telematic literacy for citizens;
  - development of local trade and crafts;
  - development of employment;
  - improvement in the quality of life;
  - e-Democracy;
  - integration of minorities;
- IT directive and strategies coordinated by the European Council;
- global information companies and the European approach: expectations and benefits for the economy and the quality of life.
Through articles prepared by the same top administrative officials who bore direct responsibility for designing and implementing the innovation and development, the volume presents, on a yearly basis, the most noteworthy I.C.T. advances put into operation by the public administration of each European country, in terms of the services offered to its citizens. These strategies increasingly take the form of “inter-sector solutions”, meaning that they are based on technological and organisational cooperation between central and local administrations that belong to different “segments” of the public sector. In short, the central and local administrations are fast becoming aware of how important “socioeconomic cohesion” is, not only within the territory assigned to them, but also with respect to the neighbouring communities and the national community of each territory. Indeed, a scarce level of social cohesion would have serious consequences, starting with a growing economic and cultural exclusion, together with a state of disadvantage and isolation on the part of the different communities with regard to the administration and system of the country as a whole. More important to citizens than even public services is their need for channels of communication and every possible opportunity for socialisation.

NOTES

1 Along these same lines, the present volume offers not only an accurate review of the European situation in the sector, but also an in-depth analysis of “Participation and Local Territorial Development”, a topic currently at the centre of the debate in Europe. For a more in-depth examination of the subject, readers should consult the Memorandum of the Symposium organised by the European Council and by the Congress of Local and Regional Authorities on 23-24 April 2007, on the topic of “Electronic Democracy and Voter Consultations on Urban Projects.”