

eGovernment in the European Union

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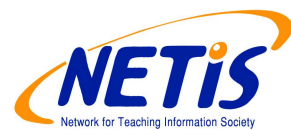
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Introduction

Although a number of new concepts and expressions have originated in the field of information society, eGovernment is considered to be one of the first and, because the whole field is rapidly developing, this concept is also constantly changing.

Today, eGovernment has become an indispensable tool in reforming state administration and the work of local government, it is increasing the satisfaction of citizens regarding services, and creating a more flexible, transparent, public administration. The European Union's relevant guidelines for its Member States stress the importance of eGovernment.

In an ageing Europe, developing competitive industry is extremely important, when we consider stagnating economic development and the consequent need to reduce social expenditure. As well as the policy of creating a citizen-centred public administration, promoting our industrial competitiveness in international markets is a central theme of the newest eGovernment thinking. The main aims are to increase effectiveness, implement the necessary structural changes and reduce administrative costs.

The role of government and public administration is becoming more and more important, as the state's potential as an active service provider contributes to any improvement in economic capacity in international markets. Nowadays, there is a lot of pressure to modernize public administration: on the one hand, public administration itself must become efficient; on the other hand, a more efficient public administration serves to make the economy and society more competitive as well. Creating good governance is possible through a "service provider" public administration that reacts promptly to changes, is flexible and able to meet the demands of users.

However, the successful realization of this may be hindered by the passive resistance of the *back-office* side of governance service providers, as well as the unsatisfactory quality of the *front-office*, customer-side service providers, and a lack of interest shown by citizens.

The first web home page of the United States government opened just 10 years ago, and at first it provided only static information. Since then, a process of professionalisation is underway, and with it the age of "amateur" eGovernment services has ended:

- systematically built and accessible fields of knowledge have been developed;
- eGovernment activity has become institutionalised as a profession (international organisations, comprehensive programmes, specialized periodicals, specialist institutions, awards/prizes);
- the specialization of relevant professionals has accelerated;
- a whole battery of training programmes have started across the world;
- the research infrastructure of this area is becoming stronger and stronger;
- governments are starting to act like large companies: on the one hand, prioritising innovation, and on the other hand with regard to the planning, implementation and management of programmes.

I. Experiments in definition

According to the definition given by the European Commission, **“eGovernment”** means using the combination of information technology, organisational changes and new skills in public administration. The aim is to improve the quality of public services, reinforce the democratic process and support community objectives. According to the Commission's initiative, eGovernment is:

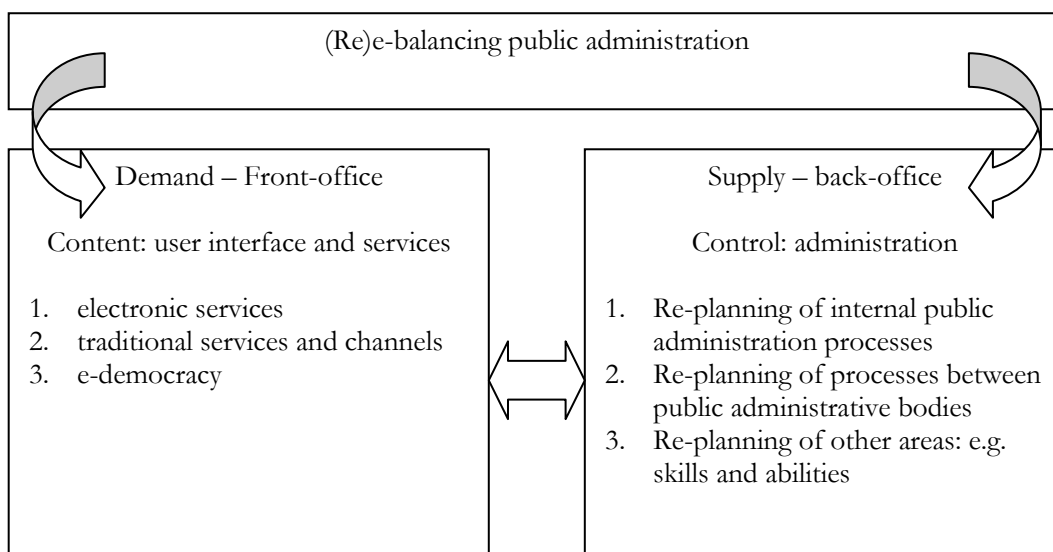
1. open and transparent: public administration capable of comprehending citizens' expectations, and it is accountable and open towards democratic participation;
2. cannot exclude anyone: user-centred public administration must reach everyone with personalised services;
3. effective public administration: operates to use taxpayers' money in the most efficient way saving time and cost.

According to the resolution of the European Union, eGovernment consists of the following three activities:

1. the use of infocommunication tools in public administration,
2. the reorganisation of work processes and operational units to ensure the modernisation of public administration,
3. training of civil servants and government officials as well as customers (citizens) in the use of new tools and technologies.

Public administration may be divided into two main areas, namely: the service-side (*back-office*) and the customer-side (*front-office*). The balance between the two sides – the distribution of public goods (the content) and administration (control) – can be achieved with the help of eGovernment by the system that can be seen in the figure.

1. Figure: The two sides of eGovernment



Source: Millard, 2003

Today, the expression “eGovernment” is used as the collective name for a, complex social and technical system, often including the following components:

- the reform of public administration;
- the technical modernisation of public administration;
- transforming services and the channels through which they are delivered, and making them multi-functional;
- developing an institutional partnership relationship between (local) government, citizens, and their local communities.

In practice, eGovernment means a new culture, a comprehensive and radical transformation in the course of which public administrative organisations make use of all the possibilities of electronics in order to improve the availability, quality and transparency of public services, and try to reduce the costs of public administration. This is in direct opposition to those frequent misconceptions concerning eGovernment, namely that the letter “e” only implies “electronisation”, i.e. computers and software. “Electronic government means the comprehensive, smooth reorganisation of processes and endowing them with opportunities made possible by new technologies, whereby administrative and governmental tasks can be performed on the interfaces of agencies, citizens and politics, as well as within and between government agencies” (OECD, 2005: 15-16).

Efforts of the European Union concerning electronic government

The development of a transparent public administration, capable of increasing competitiveness, is unimaginable today without the use of eGovernment tools. Public services must be transformed and made more efficient to fulfil the needs of citizens. Numerous foreign examples all show that the modernity of public administration is in direct proportion to the extent of the introduction of eGovernment. It is because of this realisation that, this has become one of the central themes of discourse concerning the information society, especially in the European Union in recent years.

The first milestone in eGovernment's establishment was the ambitious Lisbon Strategy, launched by the European Council in March 2000, the grand aim of which was to make Europe the world's most competitive, knowledge-based economy by 2010. This Lisbon Summit can be considered the cradle of eGovernment developments, as the first step towards becoming the leading economy in the world lies in the modernisation and simplification of regional, nation state and supranational-level bureaucracy, and all public services. This may be regarded as the foundation stone of modernisation. In the *eEurope* documents which represent the keystones of the information society's construction, building *online* public services is only one of several areas of major importance, although in the action plan *eEurope2005*, it had become one of the five main priorities.

When Europe arrived at the chronological halfway stage of the Lisbon Strategy's programme, several criticisms were voiced saying how unrealistic the aims were. At the end of the year 2004, all around the Union, there was a lot of discussion about the so-called Wim Kok Report (Kok, 2004). The professional comments, which received a lot of publicity, were very critical of the Union's policy concerning information society and technology, urging the complete re-examination of earlier proposals. However, not many people predicted what actually happened: a public admission of the Lisbon Strategy's failure. When the Barroso-led Commission came into office, a decisive change of policy paradigm took place in the field of information society and eGovernment. New, more realistic foundations were created in the European Information Society 2010 programme. The "3i" programs of Viviane Reding, European Commissioner for Information Society and Media, announced the creation as a priority of:

1. a European *Information* Space without frontiers,
2. ICT-based *innovation* and investment,

as well as

3. social *inclusion* and a better quality of life.

One of the keystones for developing the most competitive knowledge-based society and economy is the building of *online* public services, these, according to new guidelines, require the close cooperation of the Member States.

Reding believes that the key to realizing eGovernment lies in the supranational-level treatment of the following areas:

1. creating interoperability between secure identity management and the systems,
2. spreading best practice,
3. developing and efficiently operating Pan-European services.

The EU conference organised in Manchester in November 2005 reflected a change of political priorities, since it shifted the focus to centre on the citizen in the course of developing eGovernment. Not one citizen may be left out of using eGovernment services, no matter what ICT system he/she may use, or wherever he/she may live within the territory of the European Union. The Commission's i2010 eGovernment Action Plan of 2006 defines concrete milestones to be met by 2010:

- The use of electronic identification and certification systems should be made possible for all European citizens, enterprises and public administration systems;
- Development of a reference and certification framework is necessary to enable the uniform use and application of electronic documents by Member States;
- The social inclusion of all citizens must be achieved with the help of ICT, in the spirit of the eGovernment slogan: "by 2010, not a single citizen may be left out of the process";
- Easy accessibility to all public information and services of general interest must be ensured;
- To make this work, the identification of obstacles standing in the way of accessibility and appropriate changes to the situation is a necessary task for every Member State;
- An important aim is the reduction of administrative burdens on citizens and enterprises and building more effective public administration systems in the spirit of transparency and accountability;
- We should aim to create supranational-level services with wide-ranging effects (focussing on full-scale e-public procurement);
- The installation of data exchange and interoperability between governments should be accomplished by introducing open standards in the field of eGovernment.

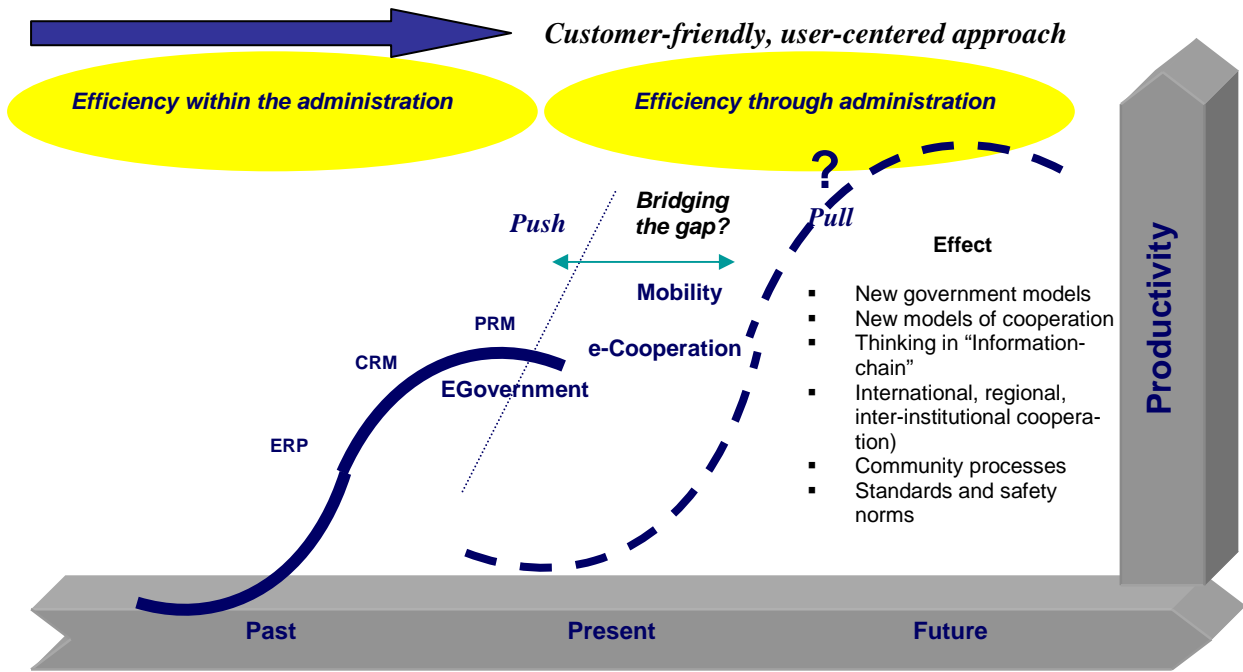
Within the Union, cooperation between Member States does not extend to the development of uniform public administration, because the achievement of common political objectives remains within the prerogative of national powers, as intended by the founders of the Union. Consequently, the Union "borrows" the historically different administrative systems of the Member States for the achievement of common objectives, and strengthens its position in the field of supervision control.

I. Paradigm change in eGovernment initiatives

It is interesting to note that the most modern, well-built *online* services are the ones where the state has a direct material interest, such as tax collection. Those services, on the other hand, which place responsibilities on the institutional system (e.g. granting authorizations, various registrations) and do not "produce" direct income, are not at the centre of development programmes.

In order to proceed, radical changes should be made in eGovernment initiatives. While administrative efficiency could be increased with the treatment of traditional CRM (Customer Relationship Management), PRM (Partner Relationship Management) systems and the introduction of ERP (Enterprise Resource Planning) MRP (Manufacturing Resource Planning) solutions that increase company resources, these methods are not suitable for developing the service-side (back-office) processes (see figure below). The increased cooperation of administrative systems has become a necessary condition for the further development of customer-side (*front-office*) services. This means a new challenge for eGovernment initiatives; in order to proceed there is a need for paradigm change.

2. Figure: eGovernment paradigm change



Source: Cap Gemini Ernst & Young, 2002 (referred by: Verhaak – Wauters, 2003.)

The essence of paradigm change is that in the *pull* model, it is the customer who is in the centre; public services must be shaped according to his/her expectations, needs and opportunities. A very efficient tool, and not aim, for achieving this may be to exploit the advantages of new technology. Citizens should have greater freedom in using personalized services in the areas of education, health, social security and taxation. The customer-centred approach requires that the processes of public services offered by institutions must be revised and simplified, and the regulatory background should also be made simpler. Creating connections between institutions and systems requires the harmonisation of the different databases, the centralization of customer identification and prioritising standardization and **interoperability**. There is only one way in which paradigm change can be successful: that is if we manage to create a horizontal operational model for the levels of public administration and government bodies and conditions for effective cooperation between the administrative systems. As a result of this, a more modern, streamlined public administration may be created operating in a more transparent legal environment.

Thus, increasingly, it is the citizens who are at the centre of efforts for development. It is for them that state administration – in cooperation with the business sector – develops user-friendly applications (*push* model): naturally, this would be unimaginable without the achievement of interoperability between public organisations (*pull* model). The user-centred approach for developing services has become a priority as a consequence of the programme for socializing information strategies, which was first formulated in the *eEurope2005* programme to be implemented prior to *i2010*.

What are the main characteristics of electronic government?

Electronic government is made up of two components:

- Renewal of the internal operation of public administration institutions – **back-office**, i.e. service-provider side.
- Communication between these institutions, the population and the business sector – **front-office**, i.e. customer-side.

Front-office service means the direct relationship between public administration and its “customers”. This is the actual interface where the “exchange” of information takes place. The typical infrastructure of the customer-side is the Internet (homepage, portal) and the telephone network.

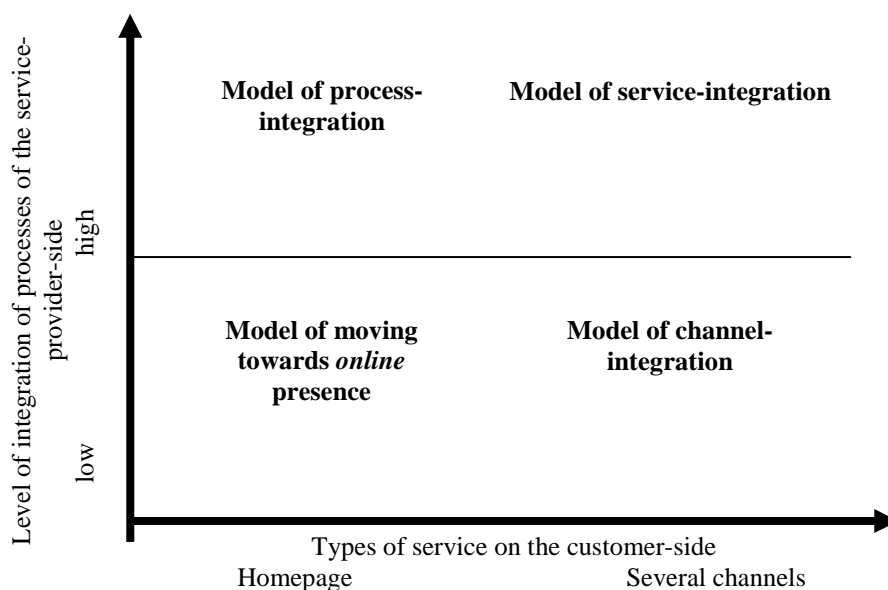
The task of *back-office* services is, on the one hand, to “serve” the *front-office*, to receive and process the documents from the customers, to ensure all the necessary conditions for integrated administration and processing (*workflow*, integrated databases, electronic signature, data protection, data safety etc.), then to return the result or results to the *front-office* modules. It is also the task of the *back-office* to support the efficient operation, management and control of public administration institutions and local government institutions.

In the past, the importance of the two components has been unequal. At first, owing to the enthusiasm following the appearance of the Internet, attention was directed towards *online* presence, and then came the increasingly efficient diffusion of information about public administration. At the present stage of the process, the popularity of web homepages is now widespread.

There are four possible forms of the relationship between *back-office* and *front-office*, that is why these indicate four different strategic models (Top of the Web Survey, 2003):

1. The model of “moving towards online services”: this is characterized by a low degree of integration between different processes, as well as by a service based on a single homepage (channel). The main objective is to have the existing services appear online as well. This has the already mentioned advantages (time saving, flexibility).
2. The model of “channel-integration”: this is also characterized by a low degree of integration on the service-provider side but customers can access the services through several channels. The emphasis is on systems for channels (on-line, off-line), and on various systems used for increasing effects and attracting attention (links, pop-up windows, etc.).
3. The model of “process-integration”: here the level of integration on the service-provider side is high, the number of channels used is limited to one web homepage. Emphasis is on simplifying processes, abolishing parallel systems and creating automation. As a consequence, the government can function more efficiently (faster, more transparent administration), and this has a positive effect on services, as well.
4. The model of “service-integration”: this has all the advantages of the former models, but as well as the high-level integration of the back-office, customers are served by as many information service channels as possible. The number of times citizens have to come into contact with the public sphere (often for the same data) is minimised.

3. Figure: Development strategies of e-services



Source: Top of the Web Survey, 2003

The real challenge is the change from one phase to the other, since there is an “evolutionary break” between the different levels.

In the course of the transition from simple presence to the interaction phase, the task is to bridge the so-called “*fear-gap*”. This means that the transition from giving simple static information to *online* communication is causing the public administration bodies serious problems, since this poses data security issues and implies serious learning tasks.

There is an “*organisational gap*” during the transition between interaction and transaction. In this phase, the public administration bodies, hitherto working in relative isolation, have to contact one another more and more often, and solve certain problems together, since the more complex transactions usually involve several areas of public administration.

Finally, the change from transaction to transformation is possible through the “*value-transformational gap*”, which means thinking according to the citizen-centred model, cooperation between the units of public administration, perfect information-division, the precise definition of the scope of responsibility, and the efficient management of the consequent legal and ethical questions.

I. What are the levels of maturity of eGovernment?

At the moment, we can distinguish between five levels of maturity in the field of eGovernment services (Cap Gemini Ernst & Young, 2002; Wauters, 2006):

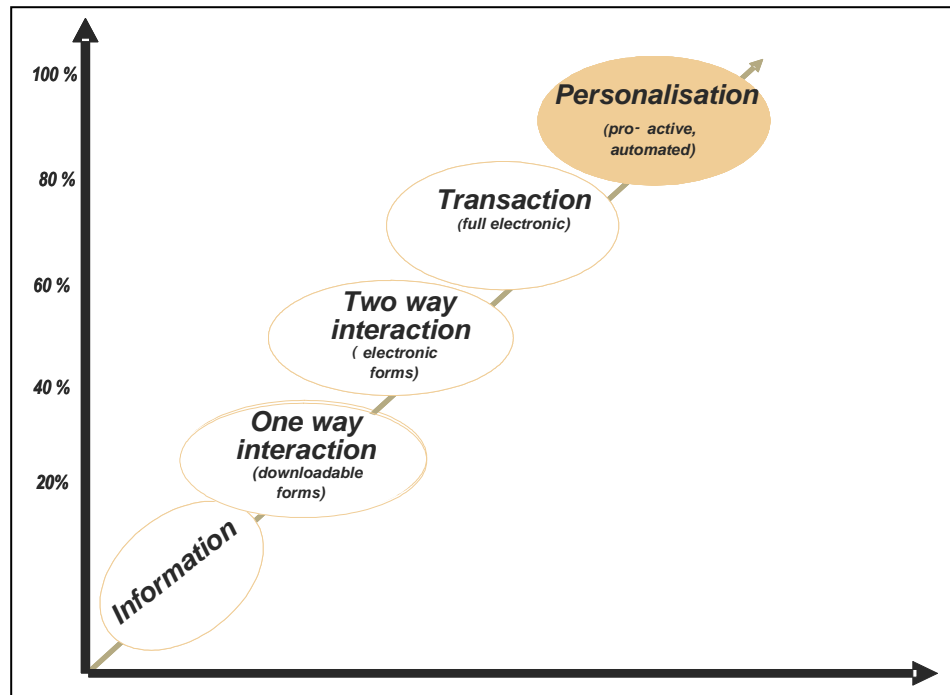
Stage 1: information: the customer receives only general information about the process of the case in question and the necessary documents.

Stage 2: one-way interaction: as well as the above, it is possible to download and fill in electronically the documents (forms) required for dealing with the case, with or without guidance control, but handing in the documents takes place in the traditional way.

Stage 3: two-way interaction: electronic data can be entered and it is also possible to check/advise on the entered data. Application in person is not necessary to initiate processing of the case, but delivery of public administration documents (e.g. certificates), receiving decisions, decrees etc., and the payment of dues and fees connected to the case all take place in the traditional way.

Stage 4: transaction: service ensuring the whole transaction (administrative process) *online*. The citizen receives the form (document) appropriate to the case electronically, and payment of the relevant fees or dues can also be arranged electronically.

4. Figure: Level of development of eGovernment services



Source: Cap Gemini, 2006

Level 5: personalisation: pro-active, customer-centred service. This fifth level of maturity will be introduced in the European Union from 2007. In the case of regularly used services such as tax and contribution declarations, it is completely unnecessary to submit personal data again and again when public administration already has them: in these cases, public administration is able to supply forms that have already been filled in.

2. Multi-channel access

Electronic public administration cannot reduce the freedom of choice of citizens, since the state cannot exclude anyone from accessing and using public services.

By the word “channel”, we mean the way in which citizens can gain access to services offered by the public sector – personally, through the post, by telephone, fax, on terminals in public places (kiosks), with browsers on personal computers.

The development of public administration portals is primarily adjusted to the expectations of the population and those of enterprises. This, however, is just the tip of the iceberg. Government reorganisation can ensure transparency and the participation of citizens in political decision making (especially at a local level). From

this view, the renewal of processes is more important than the electronisation of existing processes. This means people can effectively access services, and exercise their rights and duties. In order to be able to do this, an extremely high degree of integration is necessary between the different services and the various levels of administration.

eGovernment does not mean that in the future, the population will have to spend more time sitting in front of computer monitors, nor does it mean that all transactions performed by the state must be done via the Internet. EGovernment must make the functioning of the public sphere simpler, and reduce, wherever possible, the necessary number of operations performed in the course of a task. One of the beneficiaries of the resources saved in this way would be the citizens themselves.

3. Customer-centred thinking

The government, as opposed to enterprises, cannot choose its customers, and people are in fact more than just customers. They are connected to the state as taxpayers, users of information and in many other capacities: as citizens, they want to be well informed, they want to take part in political processes, and they wish to express their opinions concerning certain issues.

Developing a customer-centred portal means that the implementation must be adapted to the needs of future users regarding content and the nature of application. Good portals are those that apply a mixture of two different approaches: they are “life-situation” and “target-group” oriented. Governments show a preference for the life-situation approach: they adapt the services of public administration to citizens’ needs (by making sure, for example, that the desired information and services can be found with the help of key words). Being target-group-oriented means that services are differentiated according to other aspects besides that of a particular life-situation; for example, the various user groups (citizens, enterprises) or users of differing expertise (experienced or beginner) or with different rights.

4. Let the “e” become unstressed

It is indispensable that technology be “put in its proper place”, in other words, that technology should not determine the direction of development. Based on the experience of experts, the success of eGovernment processes depends on technology for 20 %, on the restructuring of processes on the service-provider-side for 35% and on the attitude of management for another 40%.¹

We should also take into consideration that deeper social and economic purposes may also be served through eGovernment initiatives. Among these purposes might be strengthening of civil society, promoting publicity and transparency, as well as strengthening democracy.

¹ Subhash Bhatnagar, World Bank, Indian Institute of Management, Ahmedabad.

5. The advantages of eGovernment

In 2004, the European Public Administration Network (EPAN) assessed the effects of the European eGovernment projects, and on the basis of the survey, it defined seven kinds of advantages that are typically the results of eGovernment development programmes.

1. The supply and quality of information improves.

With the use of ICT, and even more with the digitisation of information, in most cases a higher quality and more widespread information fortune was created. As digital systems become more widespread, it is no longer necessary to input paper-based data in a tiring manner, since the data was already created in this digital form. The management of digital information is a lot easier too, what is more, the different data sequences can be compared and combined. With the interoperability of databases and their division between different offices, information provision improves significantly, and there is no need to repeatedly supply every authority and office with certain data.

2. Procedure time decreases.

Digitalizing information brings more advantages than solely quality. Electronic information disclosure is faster, hence data can be made available to citizens and offices faster (and usually in a more up-to-date state). Services can ensure that the users of public administration services receive forms that have already been partly filled in. There are numerous indications that in the future, there might be no need for the work of data controllers in offices. The storage of information in electronic form may also speed up certain decision-making processes.

3. Administrative burdens decrease.

As a consequence of these changes, there is an opportunity to reduce unnecessary administration. Instead of applying mechanical records of data, the work of civil servants can produce added value. Furthermore, in the case of the partly filled-in electronic forms (above), the burdens of citizens can also be reduced. Users need only to skim through the form, generated with the existing data, which they can finalize with a click/push of the button. Analyses of European economic policy point out that in proportion to the GDP, the measured administrative burden² is - at present - between 6.8% in the Baltic states, Greece and Hungary, and 1.5% in the United Kingdom and Sweden. Naturally, it is no coincidence that this burden is usually lower in countries with higher GDP. The importance of this area is proven by the fact that the 25% reduction of administrative burdens on enterprises, which the European Commission would like to realize by 2012, could actually lead to a 1.4 - 1.8% increase of the GDP level³.

4. Costs can be reduced.

When listing the advantages, we must not forget one of the most important aspects, i.e. improving cost effectiveness. This cannot be felt so much by the users, since what they experience is the shortening of administrative time. If, however, the user appears as a legal person, then the monetary savings in cash can be significant. The main components of cost saving could be fewer hours of work and a smaller labour force (e.g. as a consequence of not utilizing the above mentioned data controller tasks), and electronic communication could also be cheaper than the traditional method. Of course, the simplified, automated course of business does not

² For example the reporting obligations concerning the application of legislation related to enterprises.

³ See in more detail the report containing the strategic review of better regulation in the European Union, published by the European Commission in November (COM (2006) 689).

always mean saving money, as serving customers who require individual treatment actually increases costs (time, staff).

5. Higher level services can be realized.

The components are as follows: greater flexibility, a higher level of transparency and the management of unique, individualised cases. In the first case, we are talking about the much vaunted continuous, “7/24/365” availability: background information can be downloaded at any time, forms can be obtained and filled in without having to actually travel to the office. Even financial transactions might be possible. The most important component may be flexibility, ensuring multi-channel (paper, Internet, CD-ROM, *call-centre*, SMS, WAP, digital TV) access; that is the citizen can maintain contact with the government in a way that suits him/her the best. To demonstrate the improvement in transparency, we should mention the monitoring of cases, opportunities for better interpretation of the relevant legislation, the “monitoring” of information which gives the opportunity to make exact queries concerning the phase of a certain case or the history of an official correspondence. Even in individual cases, the management of tasks that cannot be carried out by standard procedure and perhaps serving customers who require individual treatment may prove to be profitable for the service provider in both time and money. The official may be able to spend the time saved using standardized procedures on dealing with cases that require special attention.

The last two obligations, increasing efficiency and improving the satisfaction of customers, can be synthesised since these occur almost automatically as a consequence of the advantages above. Service providers have a hard time measuring these (especially the last two) although there are some possible solutions here (for example, measuring the degree of utilisation or placing it in some kind of scale/level system).

E-democracy opens up new opportunities for the public.

Modern democracies have been struggling with unsatisfactory processes for years: citizens have little trust for democratic institutions, participation in elections is low, and membership of political parties is decreasing. Many people say that that one of the greatest advantages of using new, interactive technologies is that it will help them find new ways to stop unsatisfactory processes. Technology is not a panacea, nor is it omnipotent; but with the help of the Internet, new areas of democracy will open up for citizens.

Thanks to the Internet, many users can communicate simultaneously with a lot of other people, on a mutual basis. Interactivity, the possibility of communication without frontiers plays an ever-greater role in European eGovernment activities. Primarily, widespread participation is made possible by the Internet, while at the same time, it enables the (elected) representatives to familiarize themselves with the interests of those they represent, and also, allows them to take their views into consideration in the course of the decision making processes.

On this basis the concept of **electronic democracy** can be best defined as the use of interactive technologies for strengthening democratic processes, as a result of which people may feel there is greater scope for their views and opinions, and they can be more active participants in democracy. Professor Stephen Coleman of Oxford University, who is researching electronic democracy, interprets the expression as the relationship between citizens and the government, and recommends the following definition: Electronic democracy means making use of the opportunities provided by digital technology with a view to improving the democratic process interacting between the governing power and those governed, and between representatives and those represented.

Thanks to systematic, intensive social dialogue, there is hope that democratic public culture and the willingness to participate will grow stronger, and at the same time, the understanding of democratic, political partici-

pation will become wider. Votes in elections will continue to be the main, precisely measurable scale of participation, but the communication and the discussions preceding the elections which belong to the process of everyday politics, will also be seen as an important aspect of participation.

For this reason, “real” **electronic government** is characterised by the balanced combination which ensures electronic services and the various possibilities of electronic participation. If we are to define “electronic government” as above, then “electronic democracy” can be further divided into “electronic participation” and “electronic voting” (Märker, 2005).

“Electronic participation” means not only the digitisation of existing processes of planning and decision making, its aim – with the help of information and communication technology, of course – is rather “to develop new possibilities for participation, and to establish itself as part of the new administrative and decision making culture.”

According to Stephen Coleman (Coleman, 2005), the main elements of a democracy based on the activity and direct participation of citizens are as follows: the “one-to-many” type of communicative regime, direct representation based on interactivity, creating involvement in the process of political decision making, restoring trust, and reducing the democratic deficit manifesting itself in parliamentary institutions.

Information and communication technologies can facilitate the fulfilment of a deliberative-based democracy in several dimensions:

1. making the operation of the state apparatus more transparent on an institutional level by ensuring freedom of information,
2. changing the system of connections between the citizen and the state into a system of relations based on two-way communication,
3. the self-organisation of citizens, by creating networks organised from the grass roots.

Making the state more transparent at an institutional level can be seen as the embodiment of electronic freedom of information.

The transparency of the state administration’s operation at institutional level is considered to be of key importance by the supranational directing bodies of the European Union, therefore the memorandum concerning the creation of the electronic government service system was prepared for the eGovernment conference held in Manchester in November 2005. This memorandum acts against the concealment of information and against bureaucracy excluding the public.

In Hungary, for example, the adoption of legislation concerning the freedom of information is a sign indicating the transparency of the state activities, while the presence of a growing number of online communities organised from the bottom up shows that there might be a consensus concerning public affairs; the citizen may change from being a passive receiver into a person whose creative activities are based on individual decisions. However, the majority of programmes aiming at developing e-democracy still originate from the government sector, apart from a few initiatives supporting special situations, the number of civil initiatives is insignificant.

The change from the system of connections between the subordinate citizen and the state to the more equal two-way relationship based on communication is under way.

The realisation of e-democracy also means, on the one hand, that electronic communication with the public authority becomes a civic right, while on the other hand, data of public interest becomes accessible in different formats, and from various sources.

The aim of the programme called *eParticipate*⁴, which was started in March 2005, is to create a network between institutions of the public sphere, which increases the opportunity for citizen participation in democratic processes. The initiative is based on the “*webcasting*” technology, that might allow a transmission, perhaps live from the council-chamber of a local authority, with access for audio and video content as well.

In the past few years, *podcasting* has become more and more possible, and the public sphere has realized how important this is. Anyone can upload their oral (or audiovisual) message to the Internet with the help of a computer and a microphone. Governments recognized the importance of this in 2005: the Democratic Party of Singapore was the first to issue a political *podcast*, then Senator Larry Craig, of the United States of America, made it possible to download *podcasts* from his homepage, the following day, the White House provided access to President Bush’s speeches in the form of *podcasts*.

The introduction of the institution of *e-petition* can be fitted into the conception of services supporting legislation (*e-Parliament*). The approach, which aims at the institutional modernisation of parliaments, can be achieved, on the one hand, through better organisation, managerially-based efficiency, openness, participation and transparency, and on the other hand, by aiming to eliminate an increasingly obvious democratic deficit, by which means we may regain the citizen’s trust. In this spirit, the German Bundestag launched its electronic petition service from September 1 2005, offering every single citizen the possibility to initiate e-petitions, sign petitions written by others or express their opinions concerning any ongoing *online* discussion.

Networks organised from the grass roots up are created through the self-organisation of citizens.

The Web 2.0 revolution of today has resulted in the extremely significant advance of content generated by users. Ever growing numbers of citizens record events taking place in public spaces, with their mobile phones or handycams, then submit them on the World Wide Web. With the help of blogs and RSS (*Really Simple Syndication*) formats (“very simple information-division”), citizens are creating new contents, sharing their opinions, and posting their political views. There is a growing need in society for people to contribute to the development of the public good not as passive consumers, but rather as citizens taking part in the political discourse.

⁴ Complete name: *Trans-European Network for Democratic Renewal and Citizen Engagement*, see: <http://www.eparticipate.org/>.

The results of the development of eGovernment in the European Union

From March 2000, the results of the *e-Europe* programme's implementation have been measured in the Member States of the European Union by designated *benchmarking* activity. The essence of this method lies in comparing the results and deficiencies of the Member States with the help of standardized quantitative and qualitative indicators.

By definition, **benchmarking** means the continuous survey of different products, services and organisational practices, enabling the analysis and improvement of key processes, the elimination of errors, and improving performance as well as the definition of goals. An important tool of *benchmarking* is getting to know the "best practice", which may also lead to higher performance in achieving the goals that have been set out.

Concerning eGovernment, the survey concentrates on customer-side services. In the course of defining the indicators, a list of 20 items of public services was drawn up, 12 of which targeted citizens, while 8 of them were aimed at the business sphere.⁵ The *online* classification of the interactivity of these services was drawn up by the company *Cap Gemini Ernst & Young*, in their report entitled "*Web-based Surveys on Electronic Public Services*", edited for the European Commission (Cap Gemini Ernst & Young, 2002).

With this method, they examine to what extent the electronic execution of services can be solved, and in the case of each service, they define the highest relevant level. The services examined are classified on a scale ranging from 1 to 4, and the service which is awarded the highest mark, 4 points, is the one where the whole administrative procedure can be done *online*. If we add up the points awarded in each service, and compare them to the maximum number of points that can be reached, we get the level of development according to the percentage, of the public services available *online*.

This method offers an easily comparable indicator regarding the level of sophistication of *online* public services. However, since it is based solely on the examination of network homepages, it tells us nothing about

⁵ *Benchmarking* measures the online availability and "level of readiness" of the following 20 basic public services, listing them into four (from 2007 onwards, probably into five) stages of development (Cap Gemini Ernst & Young, 2002):

Public services for citizens

1. Income Taxes
2. Job Search
3. Social Security Benefits
4. Personal Documents (passport, driving licence)
5. Car Registration
6. Application for Building Permission
7. Declaration to the Police
8. Public Libraries
9. Birth and Marriage Certificates
10. Enrolment in Higher Education
11. Announcement of Moving
12. Health-related Services

Public services for companies

1. Social Contribution for Employees
2. Corporate Tax
3. VAT
4. Registration of a New Company
5. Submission of Data to the Statistical Office
6. Custom Declaration
7. Environment-related Permits
8. Public Procurement

the degree of utilisation or the quality of services, therefore further investigations are necessary if we wish to study utilisation, and actual or potential demand.

According to the *Cap Gemini* survey of 2006, eGovernment has become a reality among the Member States (and Norway and Switzerland), the ratio of electronically available services has increased to 90%, and full-scale *online* administration is possible in 40% of all public administration homepages. The ten new Member States are two years behind compared to the EU15 countries (Cap Gemini, 2006).

1. Table: Percentage accessing the 20 basic eGovernment services

	2004	2006
EU-25	41	50
EU-15	49	56

Source: Eurostat, 2007

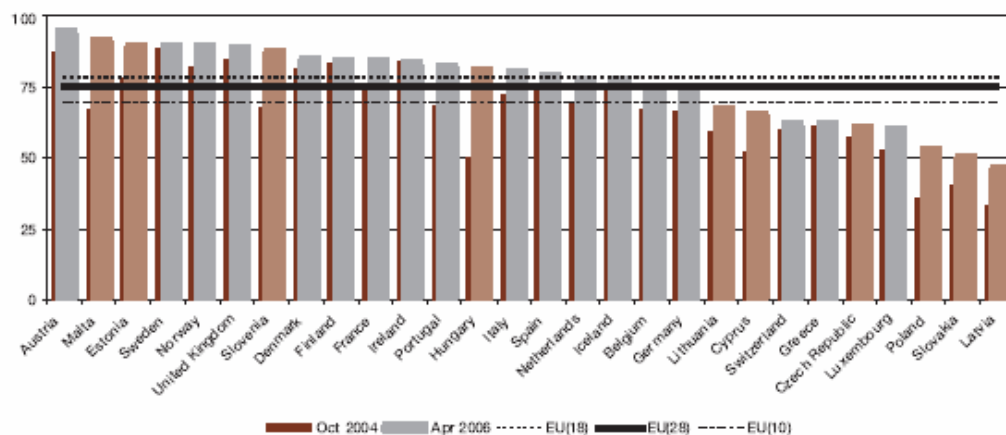
2. Table: Percentage of enterprises that are eGovernment users

	2004	2006
EU-25	52	64
EU-15	50	64

Source: Eurostat, 2007

The interactivity and elaboration of homepages has increased even further and the ratio of full-scale *online* administration has reached 50% (see the chapter regarding the levels of maturity of eGovernment). However, the trend is still that the development level, the “sophistication” of public services offered to companies is a lot higher than that of services offered to citizens. Every year, the report ranks the countries examined on the basis of the quantity and quality of available services. Austria caught up with the northern region in 2003, and its ascent continued, so that by 2006, it reached the top of the list. In the period of investigation, the indicator of sophistication rose by only 6% in the old Member States, while in the new Member States it rose by 16%, which shows the impetus of their development regarding eGovernment.

5. Figure: Ranking of online services according to sophistication



Source: Cap Gemini, 2006

According to the data from *Cap Gemini* for the year 2006, Hungary made the greatest progress in the previous year, from 23rd place to 14th place in the European ranking. The table below shows us that the proportion of the population simply seeking information is decreasing (although it is still the most frequent activity), while the proportion of users of interactive services is increasing. It is apparent that in households with broadband Internet connection, the proportion is much higher at all levels of service, even in countries (for example in Hungary) where the use of the Internet is relatively quite low.⁶

3. Table: Ratio of the use of various online public services in 2004 and 2006 in EU-25 countries and in Hungary

	EU-25		Hungary		Broadband household
	2004	2006	2004	2006	
Contacted a public administrative body through the Internet in the past 3 months	-	24	16	17	-
Gained information	21,4	20,5	14,9	13,6	36,7
Downloaded forms	9,8	13,0	6,9	11,4	29,5
Sent back filled-in forms	5,6	8,1	4,0	5,3	14,2

Source: Eurostat, 2004-2006

⁶ In the first half of 2007, 34% of the adult population of Hungary can be considered to be regular Internet users.

New directions in eGovernment research

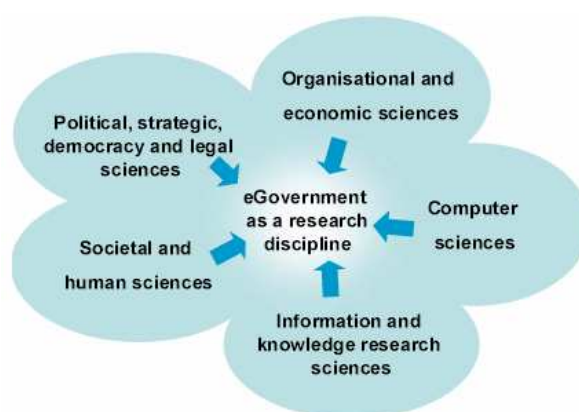
I. Focus on the rationalization of public administration

With the *i2010 EGovernment Action Plan*, the eGovernment development programmes - taking place on a supranational level - have reached a new phase. The implementation of the strategy requires from all Member States the transformation of service-side processes and organisations, in accordance with social challenges. The change in approach affects everything, so it has changed the focus of eGovernment research; the programme labelled *eGovRTD2020* has been launched, aiming to create the community administration model.

The European Commission launched the *eGovRTD2020* programme within the Sixth Framework Programme (FP6): its task is to direct the ongoing eGovernment research programmes into the right channels, identify the “hot areas”, and map the elements that define the broader environment of eGovernment development and outline a possible scenario for the future on the basis of these.

This type of *benchmarking* investigation which aims at the complex analysis of the changes taking place in society, public administration and the economy, takes a multidisciplinary approach to eGovernment as a discipline of research. That is why the project regards the following areas of science as the foundation of *eGovernment 2020*'s holistic vision.

6. Figure: Research opportunities in eGovernment

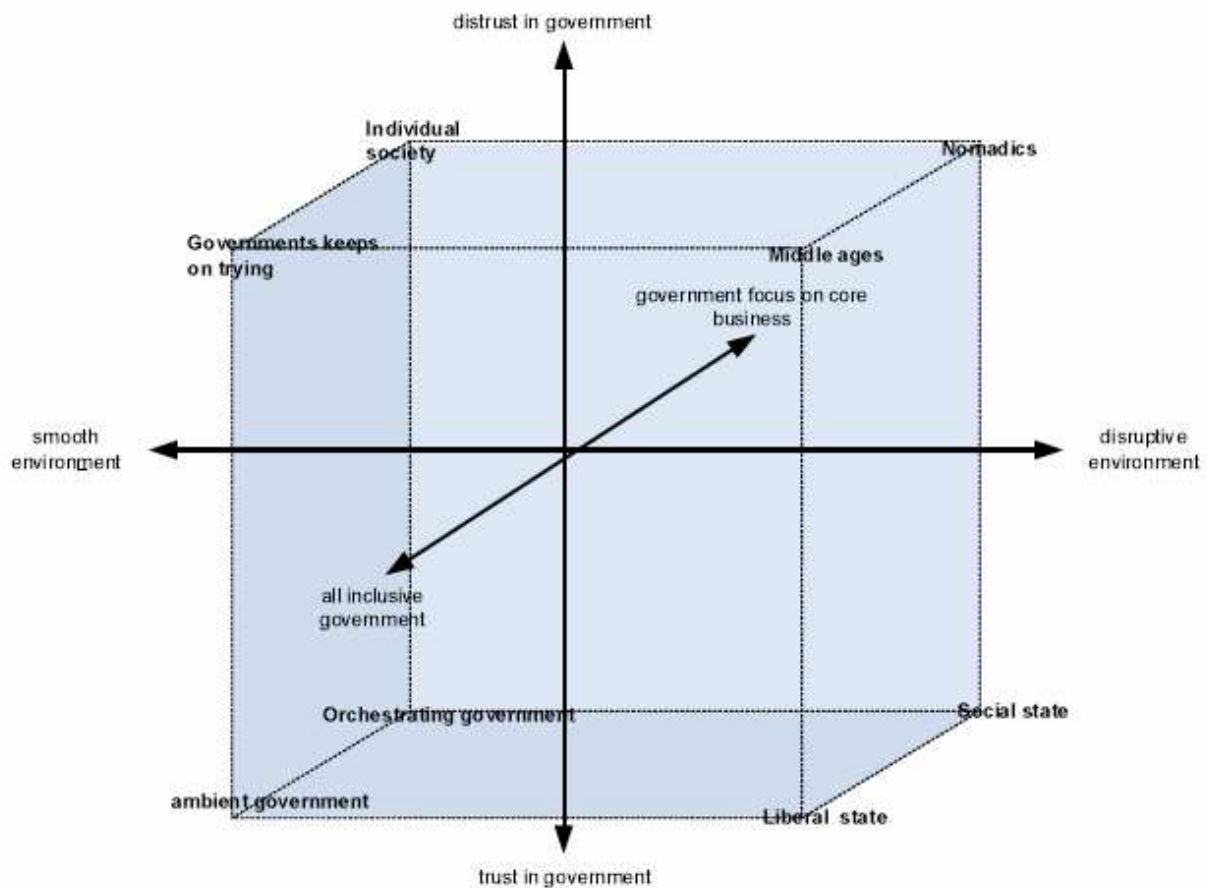


Source: Roadmapping eGovernment RTD 2020: Visions and Research Measures towards European Citizenship and Innovative Government. Fourth draft of Roadmap, 2006

The project also endeavours to map the broader environment of eGovernment development. The scenarios have been elaborated along three dimensions:

1. *Environment*: this can be balanced if it is characterized by economic growth, but recession and critical situations can have a destructive effect.
2. *Trust capital*: one of the indicators of social capital, which points to the positive or negative citizens' attitudes towards the government; that is, trust, mutuality, cooperation and participation.
3. *Government spheres of authority*: based on the government's policy of intervention. This problem area may be provoked by the government' focussing only on core business to a concentration on an all encompassing government.

7. Figure: Scenarios of eGovernment



Source: Roadmapping eGovernment RTD 2020: Visions and Research Measures towards European Citizenship and Innovative Government. Second draft of Roadmap, 2006

The eight possible eGovernment scenarios created along the three axes that intersect one another also mark the direction of eGovernment research for the near future:

1. *Orchestrating government:* This pursues a transparent, but somewhat limited policy that facilitates administration and involves all citizens and is supported by them.
2. *Individual society:* Assumes that in an increasingly atomised society people can only depend on themselves. Personal responsibility comes to the fore; the state provides only the most basic services. Since the economic market environment is very stable, only minimal compensation and complementary services are expected from public administration.
3. *Ambient government:* It encompasses a wide range of administrative activities, when the citizens' have a high level of trust for public administration. In the spirit of efficiency, the state administration acts in the interests of the public good.
4. *Government keeps on trying:* Despite the administrative steps taken in order to improve the quality of life, trust in public administration is low. There is a wide gap between the ideas of the technocratic government and the general will of society, which may be traced back to a Government failure to modernise political institutions in order to encourage citizens' participation, but this has failed.
5. *Middle Ages:* In a much divided world, the government focuses on carrying out only the most important tasks. As the level of trust drops, civil society becomes more and more self-sufficient.
6. *Nomadics:* A government with a very limited area of activity, acting in an atmosphere of distrust. Public opinion is very much divided on the usefulness of ICT: while younger people with a higher

level of education accept that these technologies help to develop a more efficient public administration. However, members of the older generation do not comprehend it all, since they feel they need security in a rapidly changing environment.

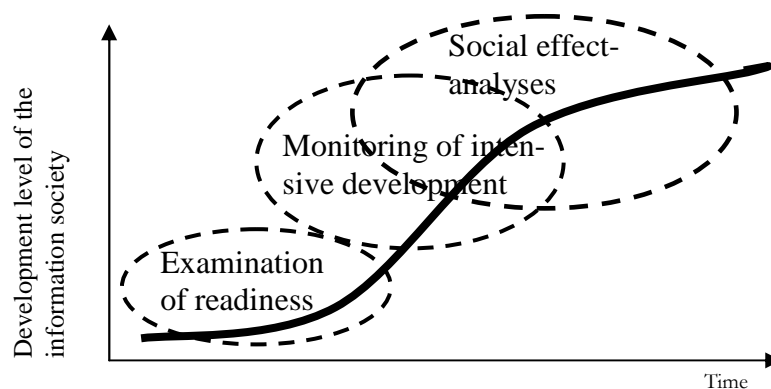
7. *Liberal state:* In a state that is unable to keep up with rapid changes, people no longer trust the state. Hence taking care of oneself becomes more and more widespread. Consequently public administration can only take on the most basic tasks. Society is extremely divided.
8. *Social state:* The providing state faces the challenges of a rapidly changing, globalised world and of demographic change with the help of new, high level technological systems. The government tries to alleviate the unsatisfactory environmental effects by providing a wide scale of services.

2. Measuring the effects of eGovernment

It is inevitable that in parallel with the development of eGovernment models, the development of research should follow a similar route. The emphasis must soon be centred on the study of the new developments with regard to both research questions and applications. Today, the approach is that the eGovernment services, ministries or states are ranked according to statistical measures, and the world is divided into those who lag behind and those who forge ahead. This may be insufficient, even flawed. We should proceed to examine the causes of new development, showing the possible direction ahead, and examining the social, economic and administrative effects of policy aims. These will require new questions and new research methods; that is, a new approach from researchers, from politicians and decision makers.

We might see a parallel between the development of eGovernment initiatives and the trend of research concerning the phenomena of the information society (including those of eGovernment).

8. Figure: Model of measurement connected to the development levels of the information society



Source: Statistics of Canada, OECD, 2002

The figure shows the typical diffusion curve of ICT indicating how research follows the development curve. The initial phase is characterized by a slow rise: a basis for later development is being laid down here. Among international indicators we can find readiness rankings that fix a point of departure. The next phase is characterized by an intensive rate of development, it is the role of indicators to express the rate of this development and record the monitoring of it. In the third phase, progress slows down and reaches a near saturation state of the technologies and of access by the public. The function of these indicators is different again; they should show that the social, economic and state mechanisms are measuring these effects. To actually record, accurately, the changes and effects taking place in this information society.

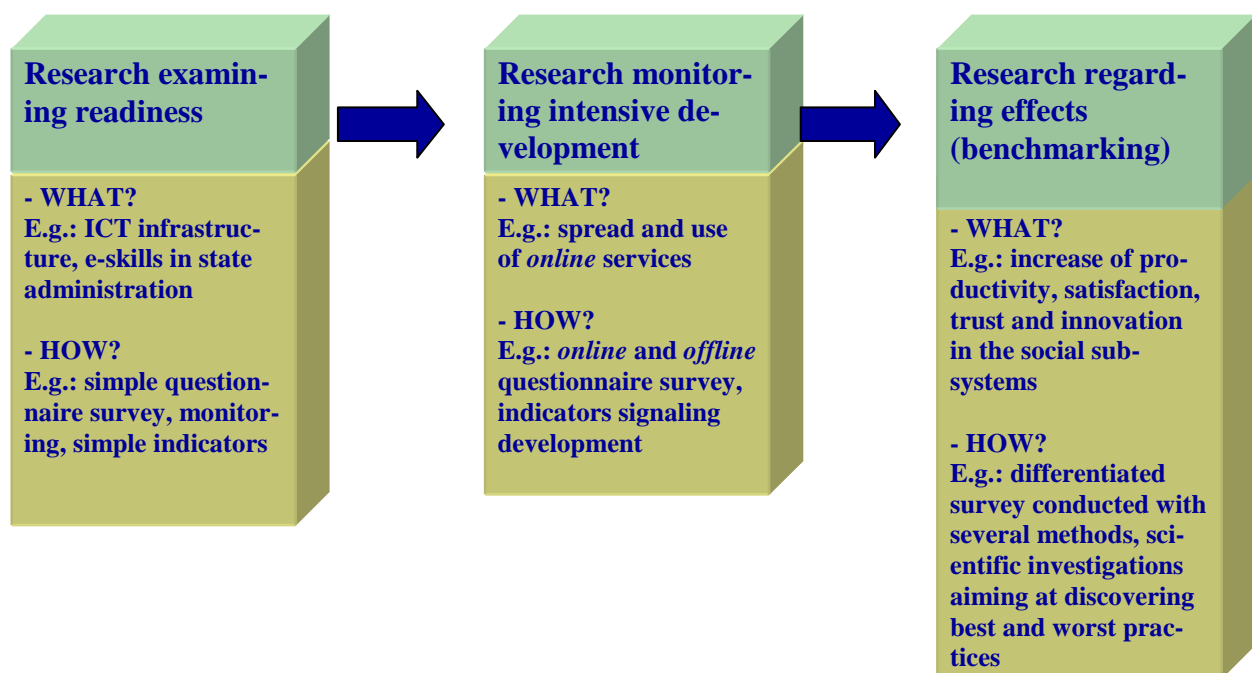
On this basis, the research into indicators of development in information society and any related investigations can be categorised into three groups:

- Indicators and research concerning readiness,
- indicators and research monitoring intensive development,
- indicators and research recording the effects of the development of information society.

The rate of development of eGovernment initiatives can also be characterized by a similar S-curve, but we are aware from research results that at the moment, we are finding a radical, paradigmatic change. The motor of change being that customer-friendly, user-centred services are developing and in the interest of increasing effective cooperation between the various public administration bodies, the different regions and the different states is getting stronger.

Of course, we can draw a parallel between the two development curves, and a statistical system can be drawn up into which the research concerning eGovernment initiatives can be input. In this system, we can differentiate between the three consecutive subject areas:

9. Figure: Development of research regarding initiatives of eGovernment



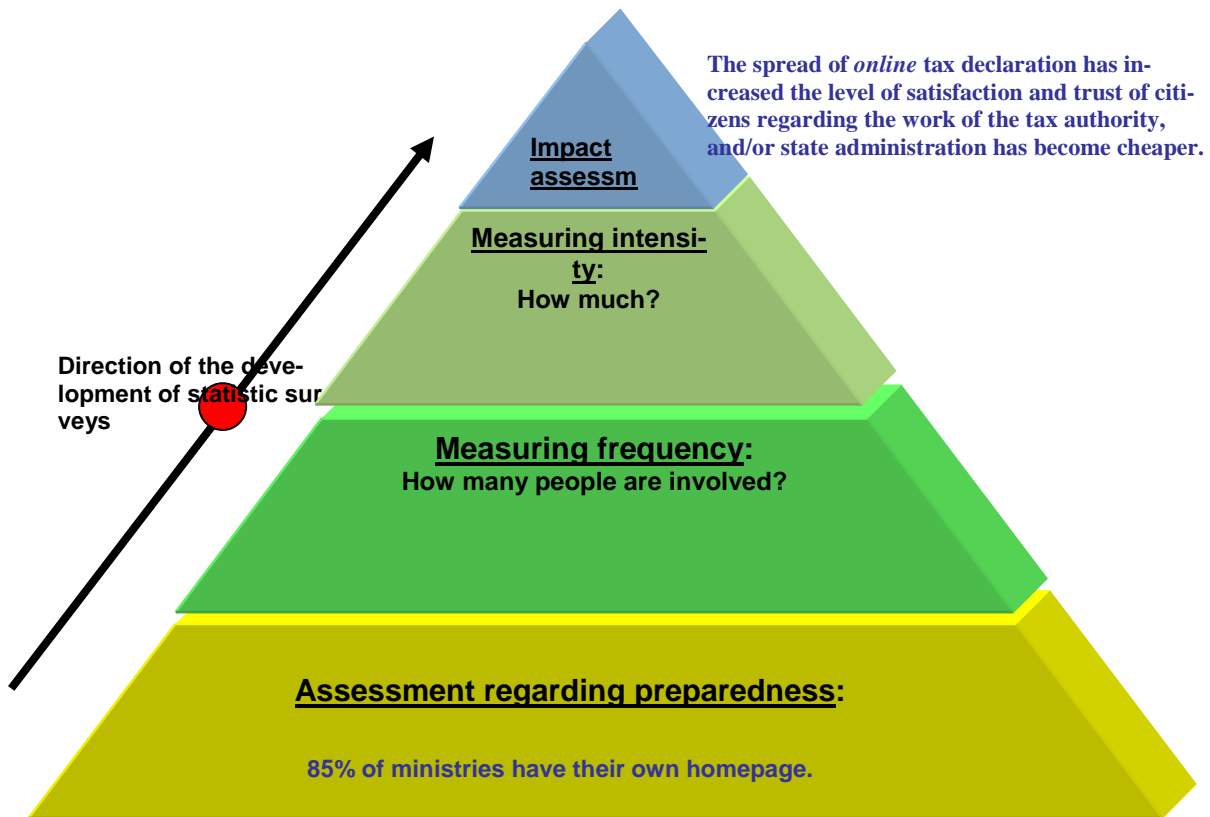
Source: Korte, 2003

The direction of development shows us that research is moving towards the better investigation of the real effects of eGovernment development programmes. The important questions are no longer about how many computers there are in households or offices, but the following, for example:

- What effect does all this technical and social change have on the quality of life?
- How do the people's satisfaction and their trust in public administration change?
- To what extent is the efficiency of public administration increasing?

Thus, relevant change to the most important type of research question and the corresponding gathering of statistical data can be summed up in the following figure.

10. Figure: Statistical surveys and development of the key questions



Source: Korte, 2003

All this presents a three-part system of requirements in those various countries when involved in eGovernment research and into information society in general:

1. information supply regarding the country's state of preparedness through investigations of *readiness*,
2. monitoring the intensity of development in the interest of comparative analyses,
3. monitoring the changes that have taken place in society generally and in the economy and public administration, in particular through the widespread use of information and communication technology.

The investigations must examine society and the economy in a sensitive, complex way, revealing then analysing the phenomena and then, by determining the directions of development and implementation, they can assist social and economic policy decision making.

The newest developmental phases of eGovernment demand a move from research that expresses simple quantity to a more scientific, benchmarking type of research that examines the effects of spontaneous development and the economic, social and administrative effects of development programmes. There is a growing need for more differentiated research and analysis, underlining the need that for those countries in the "*push*" phase, impact studies regarding the population's reception of eGovernment services are especially important.

Summary

As the European Union's global competitive position has become weaker, it has become more and more important to stress that a major effect of information and communications technology systems is that they generate economic growth and activity. It is in this spirit that the European Commission's initiative, COM (2005) 229, entitled "i2010: A European Information Society for Growth and Employment", was drawn up, and the first research was published at the end of 2006. The third pillar of this initiative, which urges stronger action from Member States, advocates the promotion of social integration by, the development and social access to better electronic public services. The significance of this topic is that according to certain scenarios, the GDP of the EU25 countries may increase by 1.54 % (that is by 166 billion euros) between 2005 and 2010, thanks to the eGovernment research and development programmes. This has a very good chance of happening according to official calculations the Member States of the European Union – with the Scandinavian states and Great Britain in the lead – spend almost 12 billion euros a year on the development of eGovernment (EU: Europe spends €11.9bn 2006).

Nowadays, *online* public administration services must meet completely new challenges: government operation must become transparent and accountable, the satisfaction of users as citizens should be increased, and the bureaucratic burdens on enterprises and taxpayers should be reduced, while at the same time, the universal availability of office services must be ensured.

Citizens of the European Union definitely require the *online* availability of eGovernment and other public services; 55% of those using e-public services in the Union spoke positively about them. At the same time, a survey carried out during the *eUser* project financed by the Union (eUser, 2005) noted that one third of users (33%) have met with some kind of obstacle at least once when wanting to use an eGovernment service. According to another interesting result of this survey, even though users are happy about the possibility of establishing *online* contact and administration, they often feel that compared to personal or telephone administration this form offers them no tangible advantages. It is a general European experience that among citizens who do not use the Internet but would like to use eGovernment services, one out of three cannot do so because they do not have the necessary computer knowledge. Because of their lack of knowledge and experience, a significant percentage of citizens do not actually get to try to access eGovernment services, despite their emphatic needs. Accordingly, the further development of eGovernment depends on the implementation of the following tasks:

- Further modernisation of service-side processes.
- Exposing and eliminating factors that prevent the social diffusion and acceptance of *online* services.
- Demonstrating the economic and social usefulness of these development programmes and achieving public acknowledgement of this.

Advantages for bodies offering public administration services:

- Developing low-cost channels for communication with citizens and members or operators in the business world.
- Increasing efficiency, primarily by information-division.
- Increasing state revenue by the building in of "payment for services".

Advantages for the users of services:

- Savings regarding public administration costs.⁷

Advantages to the society:

- Services that can be used more rapidly (time-saving),
- non-stop availability (convenience, time-saving),
- better manageability of information (convenience, time-saving),
- opportunity for self-service (convenience, time-saving),
- better supply of information (increasing awareness and being well-informed),
- more efficient communication, with special regard to more isolated communities (convenience, time-saving).

Advantages deriving from supporting comprehensive government goals:

- Simplification of process in interactions between the administration and citizens,
- more transparent government,
- macro-economic advantages - a more efficient labour market, more efficient distribution systems, reduction of costs, introduction of new products to the market.

The possible disadvantages of eGovernment:

- The personal relationship between customers and administrators, which is considered to be important by some people, may be lost.
- It is sometimes difficult to find information. Web homepages should be well-designed and easy to follow.

To sum up, we can say that the three important target groups below could profit from eGovernment services in different ways:

1. In the case of *citizens*, it is primarily in timesaving and access to a rising standard of services, but increased transparency is also important.
2. The advantages to *businesses* do not differ significantly from those of citizens, but since businesses are usually connected to public administration by more ties and administrative tasks, they have more to gain from eGovernment.
3. In the case of public services, the advantages can best be measured in time and cost savings - these can be achieved by information of higher quality, the elimination of unnecessary steps in the work process, the development of coordination between offices and the automation of services.

⁷ Savings are primarily the result of faster information flow, and the fact that the forms needed for administration are downloadable.

Revision questions

1. List the arguments for the exceptional re-evaluation of the role of eGovernment.
2. Into which two main areas of action can we divide eGovernment? What is their relationship to each other?
3. List and characterize the maturity levels of eGovernment services.
4. Which technologies can support the strengthening of deliberative democracy?
5. Which groups are not targeted by the 20 online public services recommended by the European Union?
6. What type of investigation should we favour regarding research into eGovernment?

Key terms

Back-office: A back-office system serves the effective cooperation within or between public administration bodies.

Benchmarking: A research procedure suitable for the qualitative and quantitative comparison of the performance level of an intervention with one that qualifies as the best in a similar field. The method makes the analysis and correction of key processes, as well as the elimination of errors, possible. It also improves performance and the definition of targets. *Benchmarking* is an important tool for finding “best practice”, which can also lead to higher performance befitting the targets aimed at.

Customer Relationship Management (CRM): This means all the methods, information technology applications and Internet access with the help of which a company is able to maintain relationships with their customer-base, within an organised framework.

Deliberative democracy: In the traditional conception of democracy, citizens play only a passive role as consumers, since they practice the right of democratic control mainly by voting. At the same time, they have almost no influence on determining the public good. In deliberative democracy, however, public debate plays a central role, which is usually centred on different ideas concerning the public good. In public debates, citizens express not only their existing ideas, but also formulate their point of view as a result of constant reflection.

Electronic democracy: The use of interactive technologies in the interest of strengthening democratic processes, as a result of which people may feel they have more space in which to express their views and opinions, and they can be more active participants of democracy. In other words, exploiting the possibilities offered by the digital technologies to strengthen the relationship between citizens and the government, in order to improve the democratic processes between the governing power and those governed, between the representatives and those represented. Electronic democracy can be further divided into “electronic participation” and “electronic elections”.

Electronic government: Using the combination of information technology, structural changes and new skills in public administration in order to improve the standard of public services, and make the operation of public administration more simple, more efficient and more economical, and to further strengthen the democratic processes.

EU 20 services: The 20 basic public services defined in the eEurope 2002 ActionPlan (Common List of Basic Public Services - CLBPS). The online sophistication of these services is measured annually in every Member State of the European Union.

Front-office: A customer service and information technology system through which the IT back-office systems of public administration bodies are made accessible to authorised users.

Interactive services: Services that go beyond simply offering information - downloadable forms, search systems, thematic guides that require the active participation of the customer.

Interoperability: The ability of systems to cooperate with one another. Interoperability can be:

- technical, concerning the necessary standards for the cooperation of systems

- semantic, concerning the standardisation of the description of concepts and objects
- political, human, concerning the disposition of resources
- between communities, concerning the distribution and common use of resources
- legal
- international

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