# **Electronic Government in Europe: Reality and Vision**

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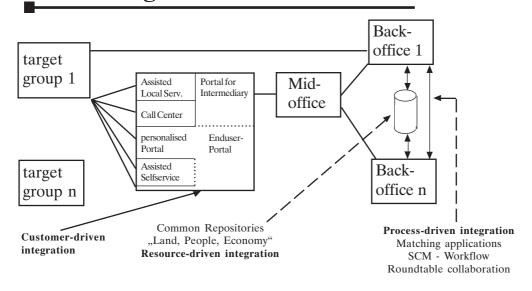
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### Nothing Really New, but a Change of Focus

In many respects, Electronic Government (or eGovernment) is just a new name for the informatisation of the public sector, which has been going on for several decades now (Lenk 1994; van de Donk and Snellen 1998). The use of IT in public administration and in other branches of government (including parliaments and the judiciary) has attained a high level in many countries of the industrialised world. But there was hardly any political interest in this ongoing and almost invisible process of modernising government. Especially New Public Management as the most important explicit movement of government reform hardly recognised the enabling potential of IT for changing the work practices and the business processes in the public sector. Its image of IT was one of an auxiliary tool, to be used for supporting financial management and statistical information.

This situation changed fundamentally with the announcement of a National Information Infrastructure by US Vice President Al Gore in 1993, heralding not only the potential for a renewal of society which an "Information Society,, holds, but relating it directly to improving the performance of the public sector. Its European echo sounded somewhat differently. All European countries embarked on policies for an allegedly dawning "information society,,, which were more often than not copies of the American template (Karlsson 1996). Yet harnessing the propagation of an Information Society to public sector modernisation was a that time not a prominent issue in the European Union, which concentrated its "Information Society, activities one-sidedly on the private sector of the economy. eGovernment both as an expression and as a concern was picked up earlier in Southeast Asia than in Europe.

# An Integration Architecture



But during the last years in Europe, too, it was discovered that promoting the informatisation of the relationships of the public sector with citizens and with the economy could be instrumental for ushering in the Information Society. The state had to assume a "forerunner, role with regard to the economy in making use of the Internet to reach its suppliers and customers.

The Information Society rhetoric stimulated and put its mark on the ongoing informatisation of the public sector. Whilst in the past, IT-support was inward-looking and chiefly brought to bear on typical back office activities, the focus moved now toward the external relationships of all branches of government. It was directed on electronic citizen services, on electronic procurement of goods, as well as on electronic democracy including democratic deliberations, citizen information, and electronic voting. Many early projects inspired by the Information Society rhetoric focussed on politically visible fields like online citizen services. The fascination of "information society technologies,, was such that almost nobody asked whether the promised improvements were really catering to the most pressing needs of citizens or enterprises. Also in the field of eCommerce, early projects were launched without caring much about what the potential customers would actually need. Up to the "dot.com,, crisis of the year 2000, market research and target group identification had been largely absent. But in the private sector, market forces quickly taught the right lessons.

Since there is generally no market test of public sector activities, the errors of eGovernment are much harder to detect than those of eCommerce, and incentives to correct them do not always exist. A case in point is the assumption that online access ",24 hours, 7 days a week," would meet the prime concern of most citizens when they have to approach a public organisation for services delivery or other reasons. To determined groups of citizens, other aspects like due process or face-to-face contact may be of much higher importance. But under the spell of eGovernment as a new fashion, the results of social scientific research on citizen-government relations, which were accumulated over decades, were totally neglected. Things were presented in such a way that existing forms of "online,, access to information would hold the key to solving all problems. The political wish to announce serious actions and quick solutions has led to focusing on transactions like registering a car or

applying for an identity card, which citizens mostly do not consider as a service but rather as a nuisance. Many governments hoped to speed up the diffusion of Internet use within the population by offering relatively simple government "services, over this channel.

### **High Expectations still have to be met**

eGovernment so far has only partly met the high expectations which it raises since a couple of years. The reasons for this delay are mainly connected to the fact that eGovernment has been chiefly technology-driven, not paying enough attention to the characteristics of the domain to which it is addressed (Leitner 2003). These reasons include:

- An initial optimism that it would suffice to transfer systems and solutions from the field of eCommerce to the public sector.
- The enabling potential of IT /Internet communication was narrowed down to what is already cast on the market.
- Promotors of public sector modernisation took eGovernment as another technological issue to be handed over to information system specialists, failing to perceive its importance as a key to modernising the public sector
- Insufficient knowledge of the public sector: Uniform blueprints mainly developed by consultancies were applied to an existing situation which was not thoroughly investigated.
  - The specific conditions and the logic of action of the public sector were, more often than not, neglected.
  - No account was taken of the variety of political-administrative systems.
  - The ways in which those systems can evolve in a successful manner were not explored.
  - User and stakeholder requirements were often elicited in a very summary way, if at all.
- There was considerable pressure on political bodies to buy into eGovernment schemes which did not take account of the real problems to be solved in the process of modernising the public sector and in ushering in new forms of public governance. This led to many isolated projects which aimed at reaping political benefits instead of promoting quick and lasting benefits to relevant stakeholders.

 Initially, online access to government was the principal yardstick for success. This mixed up two things: bringing as many people as possible to use the Internet and achieving success in terms of productivity and quality of service in the public sector.

# Electronic Service Delivery: the Starting Point for a Momentous "eTransformation,, of the Public Sector?

Despite the initial perception of eGovernment as a technological issue and despite the gap between expectations and real achievements, there is already now significant progress in bringing innovation to the public sector through information technology. There are encouraging signs indicating that eGovernment will make its way, contributing significantly to administrative modernisation. Since it is patent now that citizens are not leaping into online dealings with government, considerable efforts are made to redirect the projects aiming at a better service delivery towards truly useful systems which take customer preferences into account.

Electronic service delivery continues to be at the centre of eGovernment activities. The notion of services with regard to the action of public bodies, or the state, is somewhat problematic, since many activities of the state in regulating society cannot easily be construed as "services,, to identifiable customers. eGovernment transactions include a range of activities which we have come to address as "services,, either thoughtlessly or by giving in to ideological representations of every interaction as market-based. But in fact, a large deal of those activities does not concern services to identifiable customers. They have to do with registration of people, land and objects for purposes which are beyond the immediate interest of the citizen involved. The act of issuing an identity card may be seen as a service to that individual, but primarily it serves the community and it may ease public action in various fields. It is not a service to me to register my car, but I have to get it licensed if I want to drive it on public streets. These so called services are in fact barriers which I have to surmount in my daily life. We do not solicit them in order to receive a real service. Hence the unwillingness of many people to queue up or otherwise spend time in getting cars registered, dog taxes paid etc. No wonder then that in European polls, up to 70% of the population wants to move through the necessary procedures without showing up in any office.

# A service architecture supporting the separation of service production and delivery

The central innovation in delivering government services consists in what may be called "single-window, access. In opening up a single window for citizens and enterprises through which they can accomplish all their dealings with public bodies, many efforts can be saved. It is no longer necessary to go to different places for obtaining all services, licenses etc., which are needed in a certain business situation or "life event... All public administrations will eventually appear no longer as a set of independent agencies which have to be approached separately, but as a collective unit with which contact can be made via one and the same "portal,,, or "window,.. This effect can materialize through different communication channels: neighbourhood agencies, self-service on the Internet, Call Centres, so-called kiosks, provided that the required reorganisation in service provisions is made.

Elements of such a reorganisation are becoming increasingly clear. The momentous transformation of service delivery has to be supported by a new architecture of government services where local "Front Offices,, are distinguished from "Back Offices,.. Whilst Back Offices are in charge of producing services, keeping registers, etc., the Front Offices provide information to the citizen and they channel the citizen contact during an entire transaction, including the "tracking and tracing,, of a transaction and Customer Relationship Management. Front Offices may materialize in physical shops as well as in Internet portals or in Call Centres. Re-organising public services so as to permit single-window access will eventually benefit all access channels, not just access through Internet portals.

Again, the true innovation in service delivery is not so much Internet access in itself, but the emergence of a new institutional structure which supports service delivery over multiple channels. The internet provides just one of these channels. Quite like in the distribution of goods, retail service shops can as well provide the interface to the customer. Municipal, regional or national Internet portals and physical Front Offices are instances of such retail service shops. Such a new structure of retail service shops, which are located in the neighbourhood of their customers, could provide an opportunity to bundle services depending on what clients may need, regardless of who produces these services (Lenk and Klee-Kruse 2000). This means that services consisting mainly in the processing and communication of information can be delivered anywhere, without there being a need for the customer to appear on the premises of the service producer.

If one agrees on the issue of multi-channel delivery of services through a variety of outlets, it is quite tempting to abandon the ideal of granting Internet access to everybody, at least for the time being. A reasonable step consists of linking all the town halls and other places where citizens go for a service, so that any services provides by other local, regional and central government services can be obtained there. In Germany, the Land of Schleswig Holstein is experimenting with such a concept, linking local governments at county level with each other over an Intranet (Jacumeit 2002). The local jurisdictions which are based on a delimited territory, will not be abolished, but they will be no longer a hindrance for citizens asking for a service which they may obtain in any municipality running a Front Office. This scheme will soon be enlarged to the whole Hamburg metropolitan region, covering the administrative systems of several Länder. In addition, since the physical contact with a front office is still necessary, albeit reduced in frequency, an Internet portal is already operational, which caters for the first stages (information and establishing contact) in a service provision process. All steps are explained for preparing the visit on the premises of a front office or back office, including town maps and public transport timetables.

Such a structure is made possible by bringing the concept of Web Services to governmentwide Intranets and Extranets, which tie together all levels of government. In such networks, all government services can be found with the help of a platform which mediates between Front and Back Offices (this platform is sometimes called "Mid Office,,, other current expressions are "ebroker,, and "gateway,"). Required are standardised XML-interfaces based on a common business semantic. This semantic amounts to much more than a "government mark-up language,,, to which some technology-driven projects try to reduce it. Since it touches difficult problems of interpretation and of the mission of the various agencies, it will be extremely hard to develop.

A central piece of the new architecture is an infrastructure consisting of an exchange platform and of standards for Web Services across all public bodies. There is a clear separation between Front Offices and Back Offices. The Front Offices can be customer-centred, whilst Back Offices are in charge of producing the services which are delivered through the portals serving various types of Front Offices. Some functions like finding the right Back Office and routing and monitoring a demand, have to be assumed by a mediating structure (or "mid office,"), which links Front Offices to Back Offices.

In such a structure, Front Offices may cater for the needs of specific interest groups, e.g. the jobless, the elderly, self-employed professionals. And local governments will try to consolidate back offices in order to increase their productivity. Especially smaller units will run common back offices, thus stepping up government-to-government communication by orders of magnitude.

One of the most promising implications of this architecture is its potential for realising an integrated eGovernment. Such a situation, which will materialise in different forms in the various countries, typically involves several types of integration among the various offices:

- Customer-driven integration: This first form of integration consists in bringing together data from different Back Offices into one Front Office where a customer asks for several services, delivered by different Back Offices, which correspond to a given life event or business situation of this customer. The Back Offices may in this case be unaware of each other.
- Resource-driven integration: The second form of integration is advanced data sharing, where a dependency on common data resources is organised. Back Offices use data which are stored either centrally or in a distributed manner. They may draw on the same basic data, e.g. address, place and time of birth of a person, without having to ask for it separately. Furthermore, integrated systems of document management contribute to this form of integration.
- Process-driven integration: Here, several back office processes are interrelated. An example is a permit which is only delivered by agency A if agency B certifies that the addressee is complying for example with environmental regulations or with regularly paying social security contributions, etc. There will be an end to involving the beneficiary in games like this, even if for material reasons, the cooperation of several agencies is still required.

# Broadening the Concept of eGovernment for Modernising the Public Sector

The effects of increased cooperation and of new architectures like a separation of front and back offices will become visible only after massive investments in new eGovernment structures will have created many new viable eGovernment systems. But already now the perspective of a "virtual, administration is clearly present in administrative modernisation and, beyond, in efforts to restructure systems of governance.

The consequences of new structures of service delivery are likely to affect the very organisation of the public sector. The fragmented and multi-layered character of present public administration will be concealed behind access structures which no longer follow the intrinsic needs of service production but rather concepts of whole-person or life-event oriented service delivery. It is still an open question whether, in the long run, improved citizen service, better engineered processes, ubiquitous cooperation and knowledge management will only result in hiding the existing complexity from the eyes of the beholder, or eventually amount to a profound restructuring entailing a substantial reduction of the ever-increasing complexity of the public sec-

If the promise of eGovernment as the principal key to modernising government and governance in more than a superficial sense will ever materialise, a clearer view of the agenda of modernising public services should come to prevail. This view should not be tainted by considerations of applying readily available solutions to problems which are not sufficiently investigated.

The modernisation agenda, which is now feasible with eGovernment concepts and tools, is much broader than is often acknowledged. A still prevailing view on eGovernment stresses the external relationships of government agencies with their suppliers, their addressees (citizens, customers, constituencies) as well as with other government agencies. This view has its merits in that it opens up the predominantly inward-looking structures of IT in government towards a focus on services rendered and on results. Yet it has rightly been observed that eGovernment resembles an iceberg. The nine tenth of its volume below the water surface are more important than the top. The external perspective has to be complemented by three further perspectives which address that part of the machinery of government which is hidden below the water surface.

Reducing eGovernment to service delivery reveals a distorted perception of the agenda of government and the public sector in general. The activities of public sector organisations are much more diverse than a focus on "services,, suggests. Only in marginal cases do they consist of services rendered to identifiable customers. Many services are rendered to the community as a whole or to vaguely defined groups of addressees. The principal activities of public administrations in the field of policy execution can be described as processes of decision-making which involve many contacts with citizens, enterprises, interest groups, etc. Often they concern situations where members of a society are conferred rights (e.g. to construct a house or to run a polluting factory) at the expense of others. Calling this a service is neglecting the public interest dimension involved in such administrative decisions and regulations.

Still, there are a number of instances where a public administration performs relatively simple business processes in contact with citizens or enterprises, as in the case of issuing a passport, licensing a car or levying local taxes. Ordinary citizens, but also enterprises are primarily aware of these routine business processes which they tend to regard as a nuisance, having to fill in forms or to go in person to an office of which they may even not know the opening hours. But even when we focus on such "Government-to-Citizen, situations, besides those well-structured and potentially fully-automated productions processes, there are others which exhibit higher degrees of complexity.

A closer look at the types of processes and products which are characteristic of the public sector is required for assessing which type of information system could support them. To enrich the picture, we should also mention the policy making side, e.g. in the legislative branch of government. For many situations, there is no possibility of importing ready-made systems from the private sector. A case in point is "E-Council,": a system to support the deliberations and the work of local government council members (Schwabe 2000). Such systems are specific to the public sector.

### Three Main Challenges on the Way Ahead

If the opportunities which flow from the concurrence of government modernisation and technological progress, shall materialise, three main challenges arise:

- Decision-Makers will need to gain a thorough understanding of the issues at stake
- A breakthrough in cooperation is required: joined-up government, but also cooperation between governments, actors of the economy, and academics
- Visions of a modernised public sector should be developed.

# Understanding the opportunities and challenges

A thorough understanding of the issues at stake is required to sustain the swiftly growing political interest in eGovernment and to direct it toward meaningful goals. Often enough, senior decision-makers are astonished to learn what can be done with the help of technology. On the other side, once they have learned this lesson, they often fall prey to an unconditional admiration of the enabling function of IT, forgetting about hindrances in the way to bring this function to bear on the business of which they are in charge.

The understanding of technology should not be restricted to the present state of development of the technology and to what is on the market now. The vast enabling potential of IT, beyond what is to be found on the market so far, remains largely unacknowledged. It could be brought to improve many processes and structures in the public sector.

The history of IT use in the public sector can be conceived as a series of application generations, reflecting the respective state of advancement in hard- and software (Lenk and Traunmüller 1999). eGovernment is no exception to this. Here, the most relevant feature is communication and world wide information access over the Internet. Each generation of IT carried some general guiding ideas about what could be done with the technology. An example is provided by the idea of creating huge data banks (as well as that of regulating their use through data protection legislation), which took shape more than three decades ago, in the wake of the diffusion of disk storage devices. Another example is the "paperless office,, as a guiding idea which was prompted by the advent of the PC. Each IT generation suggested new applications, and the practice of business was perceived principally in the light of what the latest generation of computers or information systems could do to support it.

The general pattern is that problems always tended to be perceived in the light of available solutions. New applications suggested by new waves of technology seemed to arrive just in time so that problems besieging a field of practice could be tackled. The new generation of technology seemed to hold the ultimate solution for all problems. Yet when the new perspective was put into use it soon appeared that its promise was only partial. It became clear that under the spell of a central guiding idea its promise was overstated.

New technological perspectives which will mature in the years to come include above all ubiquitous computing in new forms, as well as mobile multimedia communications. Many new applications to support the work of e.g. field services such as social workers or forest rangers appear possible, but there is not much effort yet to plan for a situation where this technological infrastructure will be available. Similar observations can be made with regard to software developments in the field of speech recognition, security applications, and others.

### A breakthrough in cooperation

Cooperation, especially in the sense of joined-up government, is a particularly important challenge, since it involves the departure form deeply ingrained behavioural structures. Identification with the goals of the agencies or body to which one belongs is perhaps stronger in the public sector than elsewhere. Yet cooperative efforts by a wide range of actors from government, industry, science and the consulting professions are mandatory. Many obstacles have to be surmounted, including competing goals, a dense grid of regulations, the fragmentation of traditional public sector institutions and many historical legacies.

eGovernment was in a first move perceived as a transformation which each single agency or each local government could bring about in isolation from other players. But especially in complex polities like Germany, where not only a cooperative brand of federalism but also a high level of local self-government is complicating (and often delaying) many issues, cooperation of key actors in the sense of a "joined-up government, is of utmost importance for advancing eGovernment. But even in Germany, where local governments compete with each other, and moreover are extremely jealous of anything the Land or the Federation does, cooperation is now

progressing. Over the last two or three years, encouraging signs of increased cooperation have been observed. Still, the lacking willingness of many agencies to make investments in long-range projects, as well as the reluctance to spend money for qualifying staff, are points of distress.

## Developing a vision

Particularly missing are rich visions of what the public sector could look like some years from now. Such visions could prolong some developments into the future which are already visible.

If such visions are not developed, the temptation will persist to look at daily practice only in the light of what the technology can do to improve it. Only if well-founded visions of the future work of state and administration will be developed, will eGovernment become a lasting success.

Among the central questions that have to be answered is the following one: Under which conditions do we want our public organisations to function in the future? Which products and services do we want them to provide? And should these be produced and/or delivered by public organisations themselves or from external sources or in partnership with others? The lack of well-founded visions of a modernised public sector becomes obvious when actors trying to promote EGovernment find it difficult to figure out viable business models for new IT-based administrative services.

All too often, strategies still concentrate on the technological prerequisites of making eGovernment become a reality. It is seldom question of social (political) innovations in administrative or political practice, which are IT-mediated or IT-enabled (Hoff et al. 2000). Not surprisingly, many truly important policy fields have not got yet advanced IT support. Providing neighbourhood social services, or dealing with people with immigration status are hardly given a thought in eGovernment strategies. A large part of the population seems to be simply absent in political statements about the E-Society.

### **Conclusion**

Efforts to making use of IT for redesigning public services, processes, and structures of cooperation are not limited to the level of business processes and transactions. They are prompting new ideas about how the business of public sector organisations can be radically

changed, and about which institutional structures of government would be adequate in the new situation. The present distribution of tasks among levels of government and among agencies reflects not only the structures of policy fields, but also the constraints which paper-based modes of work and the requirements of being locally present put on the machinery of government. With the introduction of new forms of eGovernance and eGovernment, many of these constraints are swiftly vanishing. New institutional designs will increasingly gain acceptance. Basic notions like administrative jurisdiction and the territoriality of public administration will increasingly be questioned. A farewell to the timehonoured basic institutional structures of government in continental Europe is now conceivable. This would be the most incisive administrative reform since the times of Napoléon. In the long run, a radical overhaul of the "machinery of government,, in the spirit of eGovernment may lead toward sustainable institutions which are able to face the challenges of the future.

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### Elektroninė valdžia Europoje: tikrovė ir vizija

#### Santrauka

Daugeliu atvejų e. valdžia yra palyginti naujas reiškinys viešojo sektoriaus informatizavimo srityje. Informacinių technologijų naudojimas viešajame administravime ir kitose valdymo srityse pramoninio pasaulio šalyse pasiekė itin aukštą lygį. Bet šis beveik neregimas reiškinys nekelia politinio susidomėjimo norint modernizuoti patį valdymą. Viena iš esminių valdymo reformų, siekiant panaudoti informacinių technologijų potencialą keičiant viešosios veiklos ir viešojo verslo praktiką, yra naujoji viešoji vadyba. Informacinės technologijos suvokiamos kaip pagalbinis instrumentas, naudojamas finansų ir statistinės informacijos valdymui. Tačiau informacinės technologijos neribotu mastu perkuria viešąsias paslaugas, procesus ir bendradarbiavimo struktūras, t. y. pakeičia visą viešojo valdymo institucinę sandarą. Naujos e. valdžios ir e. valdymo formos rodo, kad šiuo metu vyksta didžiausia viešojo administravimo pertvarka nuo Napoleono laikų.

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