# A Prospective View of e-Government in the European Union

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**Abstract:** Emerging trends in Europe suggest that current thinking on e-Government, focusing on greater quality and efficiency in public services should be reviewed, especially when taking a European and prospective approach. The paper proposes a prospective view, which defines e-Government in the EU as a tool for better government in its broadest sense. It places e-Government at the core of public management modernisation and reform, where technology is used as a strategic tool to modernise structures, processes, regulatory frameworks, human resources and the culture of public administrations to provide better government, and ultimately increased public value. According to this view, e-Government needs to be more knowledge-based, user-centric, distributed, and networked.

**Keywords:** e-Government, public value, knowledge creation, knowledge use, user-centric government, user participation, public – private partnerships, networked government

## 1. Introduction: Emerging trends in e-Government

e-Government drivers can be clustered around the modernization and reforms in public administration and the development of the Information Society.

e-Government has become an explicit component of public sector reform, as an instrument to increase efficiency, strengthen competitiveness and enhance modernization. In this context, the present paradigm on the use of IST in e-Government focuses on greater quality and efficiency in public services, mainly by delivering existing services through cheaper ICT-based channels of distribution or by complementing existing services with added e-features.

However, a number of observations and emerging trends in Europe suggest this should be reviewed, especially when taking a European and prospective approach.

Firstly, in the next decade, the EU will go through a number of social and economic transitions (such as increasing cultural and religious diversity, ageing of population and changing living, working and consumption patterns) posing new challenges for the delivery of public services. New public services will be required, as well as innovative ways of delivering existing ones. As a result, the current approach to e-Government implementation, mostly based on the provision of existing services through new delivery channels, will not suffice.

Secondly, technological advances in the miniaturisation and portability of ICTs suggest that, in the future, e-Government will form part of an Ambient Intelligence (AmI) environment (ISTAG, 2003). In such an environment, technology will surround people and serve them in their roles as citizens, customers and professionals. Citizens' expectations of what government should provide will change. And while e-Government services in such an environment could become truly citizen, customer and business friendly ('anyplace and anywhere'), they will also face fresh challenges such as public concern about surveillance and the increasingly blurring distinction between the public and the private sphere.

Finally, while the main focus of attention in e-Government has been service provision to citizens and businesses, there is scope for more. ICTs are already strengthening the involvement and participation of citizens and businesses in public decision making (OECD, 2003a). However, there is still potential for ICTs to play a stronger role in strengthening democracy (Coleman et al, 2001).

## 2. e-Government in the EU in the next decade

A prospective view for e-Government in the EU for the next decade defines *e-Government as a tool for better government* in its broadest sense. Current e-Government strategies which focus on delivering greater quality and efficiency of public services needs to be widened. This new vision also encompasses the provision of better public administration, more efficient, transparent, open, and participative governance and the implementation of more democratic political processes.

For this prospective view to become a reality, four issues will need to be addressed by governments, namely:

 

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- The increasing importance of managing knowledge in governance and in democratic processes
- The needs of the citizens and businesses (so far unaddressed)
- The need to incorporate in the delivery chain a growing number of intermediaries, which play an increasing role in both the delivery of public services and in democratic processes
- The importance of networking, co-ordination and collaboration for better government.

In other words, e-Government will need to be more knowledge-based, user-centric, distributed, and networked. The following sections explore these issues in greater detail.

## 3. e-Government as an enabler for better government

*The vision* of e-Government in the EU for at least the next decade, defines e-Government as a tool for *better government* in its broadest sense. It places e-Government at the core of public management modernisation and reform, where technology is used as a strategic tool to modernise structures, processes, the regulatory framework, human resources and the culture of public administrations (OECD, 2003c) to provide better government, and ultimately increased *public value*.

The creation of public value[1] is a broad term that encompasses the various democratic, social, economic, environmental and governance roles of governments. Concrete examples of these roles are: the provision of public administration and public services (health, education, and social care); the development, implementation and evaluation of policies and regulations; the management of public finances; the guarantee of democratic political processes, gender equality, social inclusion and personal security; and the management of environmental sustainability and sustainable development.

Providing better government for greater public value depends on government structures, processes, people and culture delivering more (cost) efficiency (cost reduction, greater value for taxpayer's money, better financial management, and simplification of administrative procedures), more effectiveness, better quality of services, more accountability, transparency and openness, greater participative governance and more accessibility.

However, this vision will need to address a number of challenges, some of which have already been identified.

IT has become an essential instrument in the transformation of structures, operations and culture of governments. For example, the crosscutting nature of e-Government promotes the reshaping of existing government structures. It also supports open and accountable government, which helps to prevent corruption. Finally, it acts as a driver in speeding modernisation and organisational change, including the facilitation of greater teamwork and the enhancement of knowledge management practices (OECD, 2003c).

However, the use of IST in e-Government has mostly focused on greater quality and efficiency in public services and e-Government has not necessarily enhanced democratic processes in terms of the citizen's political participation or his participation in policy formulation. Indeed, modern or good governance is not just about delivering services. This notion includes democratic and cooperative policy formulation, citizen and civil society involvement, transparent and participative implementation of policies, as well as continuous independent evaluation of their results, and accountability of public decision makers so as to improve policy making in the future (EIPA, 2003; Coleman et al., 2001). Up until now, the link between e-Government (or use of ICTs) and good or better governance has not necessarily been made.

Furthermore, although ICTs can act as enablers and facilitators for more democratic policy development, implementation and evaluation, more accountability, transparency and openness, and for greater accessibility, *the technology on its own will not suffice to modernise governments*. A strong political commitment, coherent long-term strategies and implementation plans need to drive these changes, which ICTs will then enable and facilitate. Lastly, these changes will need time.

Finally, these varied and ambitious goals might sometimes appear to be in conflict with one another. For example, an emphasis on efficiency alone could lead to ignoring the needs of marginal groups. Potential conflicts within government itself could also appear. Long-term objectives supported by civil servants (for example, increasing efficiency and effectiveness or citizen political participation) may need investment that takes significant time to generate a clear return.

[1] *"Public value refers to the value created by governments though the provision of services, the passing of laws and regulations, and other actions*" by Gavin Kelly and Stephen Muers, quoted in UN, "World Public Sector Report 2003: e-Government at the Cross-Roads"

 

These objectives could be in conflict with the shorter-term objectives of politicians, who need visible results.

### 3.1 Knowledge-based e-Government: The increasing importance of managing knowledge

The emerging *vision* for e-Government in the EU in a developing knowledge-based society and economy points at a shift in governance. From being control-based, or concerned largely with the efficiency of public administration, it will become more service- and content-based oriented, where the emphasis will be on the creation of public value (Millard et al., 2004). This would be achieved through efficient creation, management and use of knowledge, which implies more participatory processes and a networked government (UN, 2003).[2]

Emphasising the role of knowledge in government, however, is nothing new. *Knowledge* has been and is still government's most important resource. The presence of highly trained, legally educated and specialized civil servants has been considered as one of the main characteristics of bureaucracy ever since Weber began writing about it. However, the rapid diffusion of ICTs and the unprecedented opportunities they offer for knowledge sharing – in tandem with the development of the knowledge economy – have rekindled the discussion on the role of knowledge in government.

The knowledge economy refers to a structural transformation in which the rapid creation of new knowledge and the improvement of access to knowledge bases increasingly constitute the main resource for greater efficiency, innovation and competitiveness. Over the last two decades, information technologies and the Internet have transformed the way companies do business, the way students learn, the way scientists carry out research and the way in which governments provide services to their citizens. Increasingly knowledgeable citizens also have new expectations regarding the responsiveness of governments to their interests and concerns.

The *management of knowledge,*[3] including such concepts as knowledge sharing and the management of tacit knowledge (accumulated experience and expertise), has thus been a common feature in government. Today, knowledge management strategies and practices in government rank high on the management agenda of most national governments across the OECD and involve organisational arrangements, personnel development and management of skills, managerial changes and incentives for staff to share knowledge (OECD, 2003b). There is an increased awareness of the importance of good knowledge management practices for new ways of working, greater teamwork, structural changes and networked government.

However, a wider approach to knowledge management will need to be taken if governments are to have the capacity to evolve towards learning organisations[4] or towards *learning governments*. This approach encompasses the creation and collection of information, the conversion of information into institutional knowledge, and the governmental decision-making based on that knowledge (OECD, 2003b). The creation and use of such knowledge for democratic governance will also require new public spaces for policy deliberation (Blumler et al., 2001).

The exact shape that government services, public administrations, and the exercise of democracy and governance could take in a knowledge-based society is still to be determined. So is the way in which knowledge will be created and used in government. However, a notion is beginning to emerge of government, which is based on the knowledge of the end user's need for value (the 'user' being a citizen, a business, a government body, a policymaker or a civil society organisation), rather than on data or document handling. It will also be based on efficient management of knowledge, which will allow it to be sufficiently flexible to adapt to changing and diverse environments and needs.

[2] See an analysis on the creation of public value through the management of information and the creation of knowledge in the UN(2003) report, in chapter II.5.4 Information and knowledge, pp 79-83.

[3] Knowledge management could be defined as the strategies and processes that promote a collaborative and integrative approach to the creation, identification, share, capture, organization, storage, access, dissemination and use of information assets, including the tacit, uncaptured knowledge of people, with the purpose of enhancing competitiveness.

[4] Possible definitions for a Learning Organization could be an organisation that is capable of developing, capturing and applying knowledge, or an organization that makes continual learning a way of organisational life, especially improving the performance of the organisation as a total system.



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## 3.2 User-centric e-Government

### *3.2.1 Empowering the citizen and addressing his needs*

If e-Government is to be an enabler for the creation of public value for the citizen, governments need to better address public *demand*. As services become more complex and expensive, it is increasingly important to assess this demand and incorporate user feedback (OECD, 2003c). However, assessing demand remains a major weakness in OECD countries' e-Government programmes.

One of the reasons for this weakness is that assessing demand for e-Government services is difficult, as it seems to be limited or unclear. Overall, it could be said that the degree of citizens' democratic participation is low in Europe, if measured, for example, by the electorate's voluntary participation. The extent to which citizens interact with public bodies on-line in order to access public services also tends to be low.[5] Thus there is an argument for focussing on public *needs*, rather than demand.

Several issues regarding *the provision of e-Government services* on the supply-side need to be considered when addressing the needs of the citizen. The interest in, and use of, government on-line public services depends on a number of supply-side factors that include: what is available, the quality and usability of the services, the services' ability to address citizens' true needs, the provision of help with using the services, and the value – in terms of time saving and flexibility – they provide to the user. e-Europe e-Government benchmark studies[6] report that, in the task of building a citizen-focused government approach, although the sophistication of electronic public services provided is significant, there is still *a need for greater emphasis on the citizen.* Services must be developed where citizens receive value in return for their taxes (i.e. access to public libraries), rather than services, which mostly interest governments (such as tax collection).

Also on the supply side, citizens' *participation in the democratic process requires elements* such as trust in governments and politicians, efficient access to politically relevant information, capabilities for managing knowledge, commitment and ability of policy makers to take into account citizens' views and to feed-back to the contributors, etc. (Coleman et al., 2001). Furthermore, democratic participation, which is a key element of democratic governance as well as a contributor to knowledge creation and usage (learning), needs public spaces for policy deliberation.

On the demand side, *public needs* will be influenced by the political and socio-economic trends in Europe, which include the need for increased mobility, the changing demography characterised by an increasingly ageing population, the development of a mosaic society, increased immigration and ongoing migration, the emergence of new life styles (24-hours-a-day and 7-days-a-week life styles, individualisation, post-materialist values, well-being and leisure, ecological awareness), the changing communication patterns induced by (new) media such as the Internet and the global trends (such as terrorism, cyber threats, and globalisation).

Currently, there is limited knowledge about what type of public needs will result from the above. However, some basic trends with regard to generic public needs are emerging (see Table1). Furthermore, e-Government should not mean that citizens have to increasingly deal with IST but rather that the use of IST should make time available for valuable personal contact by supporting routine processes, information searches, etc. In many instances, technology will not always be visible to the citizens but will support operations in the back office so that services can be more effective and personalized (EIPA, 2003).

From the point of view of government delivery of public value, there is an observable trend towards the devolution of decision-making and service provision to the lowest administrative level (to be as close as possible to the final user). The relationship between administrations is shifting from hierarchies to networks (in order to realise, as far as possible, a one-stop shop approach). Also, in some countries, regions are emerging as key actors between bottom-up initiatives of local government and top-down initiatives at a national level (Cattaneo, 2004).

Finally, an opportunity to *empower the user* has been identified. That is, an ICT-skilled user would be able to make use of the new technologies, configure the available self-services according to his or her individual needs and, through use, gradually increase demand. He could even play

[5] See for example Eurostat Statistics in Focus, Theme 4 – 16/2004 on Internet usage by individuals and enterprises, which shows for 2003 in EU15: 50% of Internet usage by individuals, 21% of individuals interacting with public authorities for obtaining information, 10% for obtaining forms, and 6% for returning filled forms.

[6] Capgemini, *"e-Government benchmark study"*, February 2003 and "*Online availability of public services: how is Europe progressing? Web-based survey on electronic public services, Report of the fourth measurement on October 2003*", January 2004

 

an increasingly active role in the definition of new, advanced services. Thus the *user driven configurability* of e-Government services at different levels emerges, which encompasses usage, development and design and deployment (usability).[7] These advanced services would strongly contribute to increasing efficiency and competitiveness - at the risk, however, of deepening the digital divide. The two complementary approaches (addressing user needs and empowering the citizen) point to a number of challenges, such as the potential conflict between simplification of e-Government services to ensure inclusion, with potentially less efficiency gains, and the skills and complexity required by applications that aim to stimulate active user participation.

**Table 1:** Some emerging trends in public needs for e-Government services

| |
|---|
| *Needs related to service provision* |
| Personalised and effective services addressing the different needs of different citizen groups (for example, those deriving from a more mobile life style, those specific for elderly, for professionals, etc.) |
| Government pro-active services (tax declaration) |
| Access to public sector information |
| Services and public spaces facilitating citizens' and NGOs' democratic participation |
| Cross-border services (e-health, education, internal market) |
| |
| *Needs related to service delivery* |
| Quality, reliability and usability (for example, the creation of user interfaces that match the existing skills and cultures) |
| Simplification of procedures and processes |
| One-stop shopping and high level of process and channel integration |
| Possibility for end-user customization |
| Interfaces and usability for all (the most important customers of governments are the least technologically-educated, hence the need to address low functional literacy across the different delivery channels) |
| Security of the data and infrastructure, the protection of personal data as well as transparency |
| |
| *Needs related to access* |
| Provide multi-channel access mix, with a diversity of contact points (i.e. home, mobile, kiosk, citizen office, multi-functional service shops, virtual and physical one-stop shops and the possibility to use letters and fax) |
| Ensure the necessary access infrastructure is available |
| Provide services which are accessible round-the-clock |
| Ensure inclusiveness across a diversity of needs (ensuring access for all social / age / economic / cultural / gender / disabled groups) by providing appropriate skills and education and addressing the digital divide |

[7] In this model, however, shifting the burden to the citizen should be avoided, and mechanisms to monitor these possible negative trends could be introduced.

### *3.2.2 Addressing the needs of businesses for cost-reduction and increased competitiveness*

Governments need to address business needs, just as they address citizens' needs, when using e-Government to create public value. The current situation in both service provision and service usage is, however, more favourable for businesses.[8] Indeed, electronic public services for businesses are more sophisticated and available than they are for citizens. As a result, the percentages of enterprises using the Internet for interaction with public administration is more than double the percentage of citizens who use it.

Unlike the limited demand from citizens mentioned above, the demand from businesses is easier to define, as it is related first and foremost to the need to minimise transaction costs generated by the interaction with the public service administration and to increase speed, simplicity and scalability – particularly important for SMEs. The fact that demand from businesses is stronger may explain why they use e-Government services more, and why Internet penetration in business has increased partly motivated by the e-Government services.

Businesses are operating in an increasingly global economic environment, where there is increasing competition and where national economic boundaries are blurring. This generates the need for businesses to *increase competitiveness*. Here too, government may have an important role to play, which might need to be better understood and addressed.

## 3.3 Distributed e-Government: The increasing role of intermediaries

Intermediary private, social and public partners are increasingly important in the delivery of public services and in the exercise of democratic governance. These intermediaries already play diverse roles as key partners in the provision of government services or democratic processes, but are seen as crucial for the implementation of more dynamic and knowledge-based e-Government in the future:

- Private sector organisations are already playing an important supporting role in the implementation and delivery of e-Government services, such as providing experience and advice (e.g. in the use of technologies in the private sector for work flow automation, process re-engineering, and change

[8] See same above references to Eurostat (2004) and Capgemini (2003, 2004)



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management), skills and education, financial resources, infrastructure access and capacity building, hardware and software products, and integrating provision of government services into private sector channels.

- The private sector is also playing a significant role in the delivery of public services (education, health care, intermediary agents) following the increasing trend for outsourcing and privatisation. This role might even grow under new economic and legal frameworks. Examples of intermediaries in government service delivery in different countries today could point to possible future models of co-operation in the digital space.
- Civil Service Organisations (CSOs) and Non-Government Organisations (NGOs) play a role in defending citizens' interests, in front of local, regional, national and international government organisations. Their role in the development of e-Government could increase to include shaping and communicating citizens' needs as well as supporting the e-Government implementation process with education and guidance. However, if CSOs are to play such a role, there must be better understanding of how their representativeness and accountability will be ensured.
- Civil servants' unions have an important role to play in defending their members' rights in the face of new technologies that contribute to the delivery of public services, as these could have a significant impact on their working conditions (including organisational responsibilities, accountabilities, skills or job content and security).
- Government service providers (or 'street level bureaucrats'), not-for-profit organisations providing services such as housing, education and research, social care, child and youth care, medical care, police, firemen, etc., are key players in the overall provision of public value. Their particular needs for e-Government services (potentially stronger than citizens' needs) as well as their current and future role in the context of e-Government development needs to be better understood and taken into account.
- It is also expected that new players, both virtual (e-agents or e-brokers) and physical (social actors, trainers, or citizens themselves) will emerge as new technologies and e-Government applications are developed, to address cognitive overload and functional or procedural complexity. Even if usability is improved, it is expected that not everyone will have access to electronic public services – intermediaries will be needed, i.e. people who provide access to others, particularly in rural areas. The potential role and needs of these new players in the delivery of e-Government services needs to be better understood.

This vision raises the importance of *developing stronger, more innovative and longer-term collaborative models and partnerships* between the public sector and diverse new intermediaries, sharing risks and rewards, which could help governments respond to changing technologies and opportunities (OECD, 2003a). Furthermore, it raises the need to better understand and consider the needs of these intermediaries as both users and actors of e-Government.

### 3.4 Networked e-Government: The key importance of networking, co-ordination and collaboration

The increasing number of public, private and social actors and intermediaries at EU, national, regional and local levels in the implementation of the e-Government vision, indicates the need for a *networked e-Government* with strong co-ordination and collaboration among actors as a key requisite for knowledge creation, sharing and dissemination, for the delivery of public services and for the creation of public value.

Other trends also drive this need for networked e-Government. Firstly, modern governance is multilevel and polycentric by nature. In this respect, most EU Member States are traditional federal states or former unitary states that have entered into a process of federalisation, quasi-federalisation or large scale regionalisation and decentralisation – a phenomenon sometimes referred to as "new federalism" (EIPA, 2003). In this kind of socio-political context, co-ordination and collaboration (collaborative governance) within and among agencies and government levels are essential to ensure interoperability, to avoid duplication, to ensure coherent action in a range of crucial areas such as security and privacy, and to provide a framework and capacity for seamless services. e-Government initiatives are thus refocusing attention on how to collaborate more effectively across agencies (OECD, 2003a, 2003c).

Secondly, it has become apparent recently that governments could create a considerable amount of public value just by reproducing themselves as networks. The use of ICTs by governments would be instrumental in transforming the hierarchical structures of public administrations into networked structures. This would be a complex undertaking, however - it would need political will, popular support, and skills and persistence, as well as ICT. It would be pointless to assume that technology alone can change the way in which

 

governments work by affecting organizational practices and structures (UN, 2003).

Thirdly, other trends point at new public service production and delivery models, based on an architecture, which distinguishes *front offices* from *back offices*. This new architecture is paving the way for a one-stop shop model comparable to the retail trade. Further more, while Internet-enabled online citizens have enabled this new delivery mode, it is expected that online access will not remain the only modern way of delivering public services. Physical neighbourhood one-stop shops, providing assistance services, will profit from e-Government potential. Thus, front offices may materialise as Internet portals, call centres, or physical one-stop shops, all enabled and assisted by ICTs. Typically, several back offices will be accessed from the different front offices. Front offices are coming closer to citizens and enterprises, while back offices can be located anywhere. Service production and service delivery centres will be on different locations, and their interconnection, collaboration and co-ordination will become more crucial than ever (EIPA, 2003).

This new service production and delivery model provides an opportunity for down-sizing and integrating back offices and developing high quality services with more relational approaches in the front offices. This will make administration more efficient and streamlined and government more user centric (Millard et al., 2004). This integration would, however, bring new challenges that would need to be addressed. From a political perspective, organisational boundaries play an important role – they are functional and have normative consequences. They have been created because they mark, or demarcate, jurisdictions, protect against misuses of power, provide checks and balances, and assign accountability and responsibility. Therefore, while it is important that boundaries between services begin to blur if they are to integrate successfully, it is also important that the necessary checks and balances remain in place.

Finally, another challenging question to be addressed is who has the power in a networked e-Government. It is therefore important to examine "who wins" and "who loses" in this concept of networked government, and to decide which values should be protected. In any event, burden (responsibility, cost, effort) should not be shifted to the end user.

## 4. Conclusions

Better public services and better governance are being demanded of European governments in tandem with the changes generated by a host of political, economic, social, demographic and technological trends. Thus, e-Government in the EU emerges as a tool for better government in the next decade, and, ultimately, for increasing public value. To respond to the challenges posed by these trends, e-Government will need to be more knowledge-based, user-centric, distributed and networked.

In a developing knowledge-based society, more efficient creation, management and use of knowledge will be needed in order to create public value. Processes will need to be more participatory, and governments more networked. The efficient management of knowledge should allow governments to be more flexible to adapt to changing and diverse environments and needs.

In order to create public value for the citizen, governments must better understand and address the citizen's needs and understand to what degree they should empower users of e-Government. Governments must also take account of business needs, such as the need to minimise the costs of interacting with public administration, and the need for increased competitiveness in an increasingly global economic environment.

The vision of e-Government highlights the increasing importance of intermediaries – i.e. private, social and public partners, in the delivery of public services and in the exercise of democratic governance. Governments will need to better understand the potential of these actors, in order to develop stronger, more innovative and longer term collaborative models and partnerships with them, and finally, to increasingly consider their needs as users of e-Government services.

Finally, there are several trends in public administration in Europe towards the development of a networked e-Government, which will require strong co-ordination and collaboration among actors. Networked e-Government is crucial for knowledge creation, sharing and dissemination, and for the creation of public value. However, it also raises new governance challenges that need to be addressed.

By acknowledging the importance of these issues, governments can move beyond the mere delivery of improved government services through ICTs. Rather, they can capitalise on the benefits of e-Government, address the fresh challenges imposed by new social, economic, technological, political and demographic trends, and strive to increase *public value* for all Europeans.



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