Analyzing and Comparing European eGovernment Strategies
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Abstract: An increasing number of countries and international organizations are realizing the benefits of eGovernment in the economic, social and administrative sector. The drive to implement eGovernment has resulted in the formulation of many eGovernment visions and strategies, driven by their own sets of political, economic and social factors and requirements. The aim of this paper is to gather and analyze approximately thirty eGovernment strategies from the European Union as a whole and from its Member States in particular, so as to identify their constituent elements, to explore the current European focus and to provide an overview of the issues addressed in the strategic documents concerning eGovernment. The identification, analysis and comparison of eGovernment strategies from across the EU has enabled us to identify some common elements, existing in the majority of the documents. First of all, a common structure has been identified within the documents, consisting of the following sections: an Introductory section which presents the current context and describes the vision of the document, the Objectives and Priorities section which describes what will be pursued under the umbrella of the strategy in order to implement eGovernment, the Measurement and Evaluation section which develops evaluation frameworks and key indicators for eGovernment and the Sustainability section which aims to ensure that the implementation of eGovernment will continue to deliver benefits after the expiration date of the strategy. As regards to eGovernment objectives, the analysis of the strategic documents identified 29 common priorities which are pursued, with the most common ones being the set-up of a single access point (portal) in order to deliver eGovernment services, the enhancement of ICT skills both for the civil employees and the society. One the other hand, the less common objectives refer to the avoidance of external barriers which could encumber further progress, the flexibility of achieving targets and so forth. The alignment with the European eGovernment strategy has been a major objective for the EU Member States. However, the diversification of the objectives and priorities suggest influence of both the international context and the national setting. Finally, the main focus of most eGovernment strategies has shifted from the online provision of services to the transformation of the government services into citizen-centric processes.

Keywords: eGovernment strategies, analysis, comparison, national, European

1. Introduction
An increasing number of countries and international organizations are realizing the benefits of eGovernment in the economic, social and administrative sector. The drive to implement eGovernment has resulted in the formulation of many eGovernment visions and strategies, driven by their own sets of political, economic and social factors and requirements. (Jansen 2005, Accenture 2004). The missions and objectives incorporated in these eGovernment strategies focus on a variety of goals, from online service delivery to the modernization of public administration and the competitiveness of national economy. Also, some strategies focus on efficiency improvement issues while several others may adopt a more comprehensive view, incorporating issues such as eDemocracy and citizen engagement. In this context, there is frequently expressed (OECD, PUMA 2001) a need for some common understanding to allow for assessment, comparison and explanation of the multi-faceted aspects of eGovernment strategies. Such an assessment of the eGovernment strategies from across the European continent will shed light on the current addressed issues and will not only provide a framework for the identification of pathways to models of good governance but it will also allow for possible future models.

The aim of this paper is to gather and analyze approximately thirty eGovernment strategies so as to identify their constituent elements, to explore the current focus and to provide an overview of the issues addressed in the strategic documents concerning eGovernment. In order to detect their core elements as well as their similarities and differences, several questions must be addressed: which elements and principles compose an eGovernment strategy? Which are the most common elements
and priorities in European eGovernment strategies? Within which issues does the possible strategy
differentiation lie? Does the European Commission provide guidelines for the formulation and the
content of eGovernment strategies? Do the EU Member States implement the guidelines in terms of
policy formulation?

The structure of this paper is as follows: following this introduction, several eGovernment strategy and
initiatives assessment frameworks are presented. In section 3 our methodology is presented for the
assessment of approximately thirty eGovernment strategies while in section 4 the main results of our
assessment and cross-comparison are described. Section 5 includes a discussion over the main
findings of our research and finally, section 6 presents some conclusions, along with some
recommendations.

2. Research Framework

The European Commission defines the term “eGovernment” as the use of information and
communication technology in public administrations combined with organizational change and new
skills in order to improve public services and democratic processes and strengthen support to public
policies (European Commission, 2002) The best eGovernment implementations however address the
ways in which internal government processes are executed, as well as how the ways in which
governments transacts with society (World Bank, 2005). The potential of eGovernment should
therefore be understood as a paradigm shift that improves how government operates and how society
views, understands and interacts with government.

As an increasing number of countries and organizations are realizing the potential and benefits of
eGovernment, governments and policy-makers create strategies relating to information, ICT and the
implementation of eGovernment at all levels: local, regional, national and supranational. These
strategies express their vision and set targets and objectives in order to make eGovernment a reality.
However, disillusionment in both the public and private sectors with the promised benefits of ICT
(OECD 2006) has obliged governments to more carefully question the expected and actual outcomes
of eGovernment strategies in order to better target scarce funds and drive the economy in the
Information Society era.

In this context, eGovernment strategies have evolved in order to address the new challenges and
examine benefits, risks and success. But along with governments that issue new or updated
strategies, there is a growing demand for alternative ways to assess eGovernment maturation beyond
generic frameworks that assume universal end states. Moreover, eGovernment strategies encompass
both whole-of-government (national, state or provincial, and local) and agency-specific strategies and
objectives. (Di Maio et al., 2007)

As every nation has its own functional, social and administrative objects to fulfill, every eGovernment
strategy should be viewed and assessed with respect to its context of applications (Jansen 2005). A
greater understanding of motivation and resulting patterns of development in different settings can
facilitate the process of comparing approaches and provide a rational means of setting the reform of
public administration on course for efficiency and transparency, with clear orientation towards its
citizens (Bertelsmann, 2001).

The literature describes a number of frameworks that in various ways conceptualize eGovernment
development and implementation (see Gronlund 2002, Accenture 2004 etc). Grant and Chau (2005)
have presented a comprehensive framework for the assessment of eGovernment development. Their
goal for developing this framework is to characterize and identify the different directions and
dimensions of different eGovernment approaches. The framework could also be used to “categorize,
classify and compare electronic visions, strategic agendas and application initiatives”. Furthermore,
their intention is to provide a framework that “should act as a lens to focus attention and awareness
on underlying issues and elements that could be debated, discussed and further developed”. Grant
and Chau have applied their framework on case studies and found that their framework provided not
only a mapping of diverse eGovernment elements to a common perspective but also the ability to
compare and differentiate underlying goals and themes between different implementations as well as
the ability to draw general conclusions and compare differences and similarities across
implementations.
Furthermore, Di Maio et al. (2007) have described a new eGovernment Assessment Framework in the context of the new demands and needs that make refocusing of assessment areas essential for eGovernment success. They presented a revised framework in order to capture whether an entity's eGovernment strategic objectives demonstrate an understanding of constituent needs and priorities, the most effective communication means, and the right combination of service delivery channels and mechanisms. At the same time, the new framework helps formulate core questions about whether government organizations involved in implementing the eGovernment strategy have the right tools, resources, processes and political support required for a future-state vision to be realized. This leads to assessing both the completeness of vision and the ability to execute. Therefore, Di Maio et al. have presented two sets of criteria and metrics, addressing the completeness of strategic vision and its ability to execute. The former set of criteria address constituency understanding, constituent-centric strategy, service delivery strategy, service development strategy, transformation and innovation and eGovernment marketing strategy. The latter one includes criteria that refer to budget viability, agility and adaptability, political support, constituent service capacities, organization and governance, and operational efficiency.

In addition, the World Bank (2005) has presented a Monitoring and Evaluation Toolkit for the assessment of eGovernment strategies and initiatives. According to the World Bank, eGovernment efforts, which constitute a core element of eGovernment strategies, must be measurable and generally visible in order to attract support from civil society at large. Therefore, offering transparent ways to measure progress, through benchmarking, and more generally through monitoring and evaluation, will be vital for success in eGovernment. Hence, within the Monitoring and Evaluation Toolkit indicators are presented for the three levels of eGovernment approaches (publish, interact, contract) in order to clearly measure both the objectives and the outcomes of eGovernment efforts. More specifically, indicators are presented for all the pyramid layers of each level, namely policy goals, strategic priorities, key initiatives and actions.

The frameworks presented above help politicians and other stakeholders to compare their strategies with similar ones in other countries to ensure that their efforts are leading the government toward the right direction. Thus, appropriate frameworks are intended to serve two purposes; firstly to help the development of eGovernment and secondly, as a basis for assessment and evaluations. However, the primary research strategy of the assessment framework should be to link the studies of eGovernment efforts to overall national goals and political priorities, taking into consideration their specific democratic, and political system, governmental structure, culture etc.

In spite of the fact that these frameworks shed some light on the basic elements of an eGovernment strategy and/or initiative, they usually do not attempt a mapping of global eGovernment priorities. Moreover, the aspects that differentiate one eGovernment strategy from another are not explored along with the eGovernment elements that are less common among strategies. Finally, some frameworks examine only national strategies and do not take into account any possible influence in terms of content and implementation from international organizations and their strategies, like for example in the case of the European Union and its Member States. The lack of focus on the above mentioned aspects has been the basis of our analysis. In other words, our analysis intends to supplement the gaps of the current research frameworks in the field of eGovernment strategy assessment by examining and analyzing each strategy under this optical angle.

3. Methodology

First of all, in order to identify the strategies, Internet-based research has been employed. More specifically, several search engines have been used in order to detect the basic strategic documents for each country and for the European Union (EU). The research has been conducted in three languages: English, French and German. The keywords mainly used are “eGovernment strategy” or “eGovernment policy”. The name of each country has been added next to the two keywords in the case of countries, e.g. “eGovernment strategy Estonia”. In addition, the IDABC eGovernment Observatory of the European Commission has provided a valuable insight into eGovernment strategies, initiatives and projects in Europe.

Secondly, the identified reports have been thoroughly examined and analyzed in order to identify their major priorities, their constituent elements, and their alignment with the European strategic Action Plans. More specifically, the objectives and priorities of each document have been pinpointed and a list, consisting of twenty-nine main eGovernment priorities, has been created. This list does not intend
to be comprehensive, rather than indicative of the priorities on which national governments and the international organizations put emphasis. Also, emphasis has been put on the EU eGovernment strategy and on the ways it affects the formulation and implementation of the Member States’ national strategies. Moreover, the structure of each document has been investigated and a common structure has been identified.

Finally, a table has been created containing the basic eGovernment priorities broken down by country/organization. This table has enabled us not only to mark the common elements which are incorporated in the majority of the strategies but also to recognize the priorities that differentiate one strategy from another. Furthermore, the table has generated two graphs which better illustrate the analysis results and are presented in the section below. (Figures 1 and 2)

4. Results
For our analysis, approximately thirty eGovernment strategies have been gathered, analyzed and compared from the European Union (eEurope 2002, eEurope 2005, i2010 Action Plans, 1999, 2002, 2005) and countries:

- Austria, ABC Guide to E-Government in Austria, Austrian Federal Chancellery, ICT Strategy Unit, 2004
- Belgium, Cooperation agreement, signed by the federal, regional and community authorities, Ministry for the Computerization of the State, 2006
- Bulgaria, Development of eGovernment, Ministry of Public Administration, 2006
- Cyprus, eGovernment vision of the Government of Cyprus, Cyprus Planning Bureau, 2004
- Czech Republic, State Information and Communications Policy (eCzech 2006), Ministry of Informatics, 2004
- Denmark, The Danish eGovernment Strategy 2004-06 - realizing the potential, Project E-government, 2004
- France, Strategic Plan for Electronic Administration 2004-2007, Ministry for the Civil Service and State Reform, 2004
- Ireland, New Connections - A Strategy to realise the potential of the Information Society, Department of the Taoiseach, 2002
- Luxembourg, eGovernment Master Plan, Coordination Committee for the Modernization of the State, 2005
- Netherlands, Modernising Government programme, Dutch Government, 2004
- Romania, National eAdministration Strategy and Action Plan, Romanian Government, 2004
- Spain, Shock plan for the development of eGovernment in Spain, Ministry of Science and Technology, 2003
- Sweden, A public administration in the service of Democracy, Ministry of Justice, 2000, and
The analysis has indicated that although eGovernment strategies vary considerably in terms of focus and the degree of change they aspire to undertake (World Bank, 2005), the vast majority of the strategic documents are organized under a common structure which consists of the following sections:

An Introduction about the current and potential social, and as relevant, the technological context of the document in order to raise awareness of the stakeholders, about the previous documents it usually replaces or updates in order to illustrate the integration of the document within the general eGovernment context and a clear definition about the main objective it will pursue (output and outcome).

The introduction is usually followed by the vision of the strategic document which is typically a general statement about the outcome to be pursued in order to advance the progress of eGovernment, such as for example “To provide citizens and businesses with friendly, simple, accessible and secure electronic administrative services, e-democracy applications and information available on the Internet anytime anywhere, for all of their life events” (Slovenia, Ministry of Public Administration, 2006).

The section that usually follows the vision refers to the priorities and the objectives to be pursued as well as the strategic implementation required in order to make eGovernment work and deliver benefits to all stakeholders. Therefore, this section usually identifies principles, strategies, mechanisms and potential trade-offs and risks using eGovernment to maximize responsive design and delivery services and to enhance citizen engagement in democratic processes. In addition, the objectives section identifies the potential changes to the role and legitimacy of public administrations, and relations with stakeholders as a result of the implementation of eGovernment. Finally, effective approaches to leadership, co-ordination and policy coherence for the implementation of eGovernment are identified, including consideration of centralized/decentralized approaches.

Our analysis has identified 29 main objectives which are usually pursued by eGovernment strategies and refer to a wide spectrum of eGovernment aspects at all levels: Government-to-Citizen (G2C), Government-to-Business (G2B) and Government-to-Government (G2G). These 29 objectives and priorities do not by any means compile a comprehensive list. They rather constitute an indicative list of the main focus of the majority of strategies and they namely are: 24x7 Borderless access to government information, Alignment with the European strategy, Avoidance of external barriers, Citizen engagement & Participation, Common standards & interoperability, Cost-effective procurement/eProcurement, Decentralization, Deregulation & legislative reform, Development of infrastructure, eCommerce, Efficiency & competitiveness, Electronic legislation (eLegislation), Encouragement of Collaboration among Government Agencies, Enhancement of democracy, Enhancement of ICT Skills, Trust, transparency and accountability for the transaction with the Government, Flexibility, Harmonization of legislation, infrastructure etc, Improvement of Service Delivery, Inclusion, equality and bridging of digital divide, Government Responsiveness & Responsibility, Local and regional focus, Online Services & Registration for businesses, Privacy and security, Proactive public sector, Economic development, Reduction of Connection Costs and Broadband Deployment, Single access points/portals and Usability of the government services.

However, not all of the above mentioned objectives are included in an eGovernment strategy. Our analysis has indicated that there are several aspects of eGovernment which are more often addressed, with the 10 most common ones being the set-up of a single access point (portal) in order to deliver eGovernment services, the enhancement of ICT skills both for the civil employees and the society in general, the guaranteed trust, transparency and accountability of the government, privacy and security for the transactions with the government, 24x7 Borderless access to government information, alignment with the European strategy, the use of common standards by all government entities, the development of the appropriate infrastructure for the implementation of eGovernment, efficiency of the public sector & competitiveness of the national economy, and above all, the improvement of the services delivered to citizens and businesses in terms of quality, quantity, cost and access.
On the other hand, the 10 least common eGovernment objectives refer to the avoidance of external barriers which could encumber further progress, the flexibility of achieving targets with a variety of means, decentralization, electronic legislation, harmonization of legislation, eCommerce, use of ICT’s to enhance democracy, promotion of the economic development of the country, reduction of connection costs to the Internet and broadband deployment and transformation of the bureaucratic, process-oriented public sector into a proactive and citizen-centred one.

Figures 1 and 2 depict the 29 most common eGovernment objectives in ascending order.

**Figure 1:** the 29 most common eGovernment objectives

**Figure 2:** the 29 most common eGovernment objectives (continued)
As regards to the EU eGovernment strategies and their influence on the national strategies, the analysis of the latter and the cross-comparison with the European strategy indicated that the content of the national strategies is strongly influenced by the former one. However, while the basic guidelines are followed from all Member States, the actual formulation of the national strategies depends largely on both the national setting and the national priorities.

Finally, it is worth mentioning that, as alleged from the analysis of the objectives, eGovernment strategies are shifting their preoccupation from the quantity and take up of online services to interests in demonstrated operational efficiencies and streamlined citizen-centric interactions derived from joined-up government processes.

The section of the objectives is usually linked with the measurement and evaluation section which follows and presents indicators, specific objectives and milestones embedded in the eGovernment strategy. More specifically, the measurement and evaluation section develops evaluation frameworks and key indicators both for eGovernment, covering government responsiveness, the impact on public administrations and for eGovernment implementation, including measures to benchmark progress, quality, benefits, costs and effectiveness. In addition, some strategies develop feedback frameworks in order to gather, measure and analyze the stakeholders’ response towards the implementation of eGovernment.

The last section of a strategy, if not the one mentioned in the paragraph above, presents a sustainability plan or sets sustainability objectives in order to ensure that the implementation of eGovernment will continue to deliver benefits after the expiration date of the strategy and that this delivery will be effective and efficient. Therefore, the sustainability section aims to ensure that that the government institutions will continue demonstrating good stewardship of resources after the current strategy has expired by achieving concrete results within a minimum of waste, while following agreed-upon standards and procedures.

5. Discussion
The evolution of eGovernment strategies has shifted from online service provisioning to process transformation. The new strategies take a wider range of factors into account and follow more holistic approaches for the implementation of eGovernment. This is illustrated by the fact that the most common objectives refer to issues of wider influence and concern, such as the efficiency of the public sector, the competitiveness of the national economy, the accountability of the government, the use of common standards, the realization of interoperability etc.

However, the “bottom” ten objectives are pinpointing two situations. On the one hand, the maturity of eGovernment in several countries suggests that as several objectives have already been achieved, there is no need for them to be included in the current strategic documents. This is particularly true in the case of eCommerce as well as in the case of reduction of connection costs and broadband deployment (eEurope 2005 Action Plan, 2002). On the other hand, several strategies fail to put emphasis on important aspects, such as the avoidance of external barriers, the use of ICT for the enhancement of democracy, the harmonization both of legislation and processes etc. As the likelihood of success for an eGovernment strategy depends on the completeness of the vision and the wideness of the objectives, it is important that these issues are taken into consideration by the policy-makers during the formulation stage of a strategy.

Moreover, the diversification of the objectives and priorities suggest influence of both the international context and the national setting. Joining a globalized information culture generates wider impacts on the strategy models, the dependency relationship with the supranational policies and the governance practices. This is mainly visible within the European Union, whose policies largely affect not only the Member States’ strategies but also the satellite countries’ strategies.

On the other hand, the local context is a decisive factor for the formulation of a strategy. The achievement of eGovernment goals requires that ICT’s in a country are developed to a sufficient level to allow measurable changes to take place in the way government functions and citizens are served. The ability of citizens to access ICT’s, the existent infrastructure, the affordability of Internet access, the competitive regulatory framework, the availability of basic ICT skills across the society, the culture and the attitude towards ICT take-up are only a few of the factors that illustrate the impact of the local context on the strategy and the diversification that exists from one document to another. For example, Blakemore and Dutton (2002) identify in the case of Jordan several factors that directly affect the
focus of the Jordanian eGovernment strategy, such as the country’s position within Arab nations, its practices of governance, the codes of the Islamic society and its situation within the global development process.

However, while every strategy has its own peculiarities depending on political priorities and current achievements, some areas have emerged as key for sustainable success:

- Having a deeper understanding of citizens’ desires and behaviours with different channels
- Establishing an effective governance structure for whole-of-government initiatives
- Using an enterprise architecture approach
- Focusing on results and performance management

As Di Maio suggests (2006), eGovernment policy-makers, CIOs, chief technology officers and project managers should take a look at developments in different parts of the world to distil some of the early lessons learned. These lessons should be conveyed to their colleagues with business responsibilities for eGovernment initiatives.

6. Conclusion and Recommendations

The identification, analysis and comparison of approximately thirty eGovernment strategies from all over the world has enabled us to identify some common elements, existing in the majority of the documents. First of all, a common structure has been identified within the documents, consisting of the following sections: an Introductory section which presents and the current context and describes the vision of the document, the Objectives and Priorities section which describes what will be pursued under the umbrella of the strategy in order to implement eGovernment, the Measurement and Evaluation section which develops evaluation frameworks and key indicators for eGovernment and the Sustainability section which aims to ensure that the implementation of eGovernment will continue to deliver benefits after the expiration date of the strategy.

As regards to the eGovernment objectives, the analysis of the strategic documents identified 29 most common priorities which are pursued, with the common ones being the set-up of a single access point (portal) in order to deliver eGovernment services, the enhancement of ICT skills both for the civil employees and the society and the less common ones referring to the avoidance of external barriers which could encumber further progress, the flexibility of achieving targets and so forth. The alignment with the European eGovernment strategy has been a major objective for the EU Member States. On the other hand, the diversification of the objectives and priorities suggest influence of both the international context and the national setting. Finally, the main focus of most eGovernment strategies has shifted from the online provision of services to the transformation of the government services into citizen-centric processes.

However, towards achieving the objectives laid down in a strategy, critical success criteria for eGovernment vision and execution must be adopted in order to assess how well strategic government transformational objectives are being achieved. After all, more than any other components of an eGovernment strategy, implementation efforts are highly visible. To attract support from civil society, clear objectives must be established which will be transparent with regard to their implementation. Hence, failure to meet deadlines or reach milestones may be quite damaging. The specification and design of indicators and methodology must be rigorous and precise.

After all, a key feature of eGovernment strategies should be to reconnect the public with the agencies of government. In a time of declining voter participation and increasing apathy about politics, it is perhaps surprising that more efforts have not been channelled into greater interaction between citizen and government, civil servants and individual politicians. Therefore, it is essential that citizen participation will be enabled at all stages of an eGovernment strategy; from its formulation stage to its implementation and evaluation, the feedback might be of valuable importance.

The implementation of an eGovernment strategy is not a process of linear change, leading continually to the improvements expected by the theory. In highly complex societies, the interaction of processes such as culture, geography, politics, economic attainment, globalization, participation in international organizations, can interact in unexpected and uncertain ways. These challenges should be realized, understood and addressed by eGovernment strategies in order for their vision to be implemented and to contribute as highly as possible in the process of economic, social and technological development.
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