A REVIEW OF E-GOVERNANCE MODELS IN THE EU

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Abstract: This paper attempts to explore and test the validity of a geographical grouping of e-Government modelling across the European Union. In this work only the pre-2004 EU states are considered, as they have more mature and established governmental systems and procedures tested against time and having undergone a considerable review by their citizens. These states have been grouped in four main sectors depending on the geographical location, those of Northern Europe, Anglo-Irish, Central Europe, and Southern Europe**.** Comparing various national strategies the authors identified considerable diversity in the approaches to e-Government initiatives, varying levels of adoption and implementation, and key differences in e-governance policies. The study of strategic visions and strategic objectives revealed that the geographical groupings are not valid as far as strategic planning of e-Government adoption and implementation are concerned

1. Introduction - An overview of E-Government

The term e-government has only been in general use in the past five years; the concept has been developing since the mid-1980s. E-government can be described as arising from the interactions between three separate sets of forces, each of which has gone through its own evolution: ICT, management concepts and government itself. Electronic government is not a simple or well-defined theoretical construct. It can be understood as anything from online services alone to any information and communication technology used by government, (Gil-Garcia & Pardo, 2006).

Over the past decade the concepts of government and governance have evolved and undergone dramatic transformation. This is due to increasing pressures and expectations for the way we are governed to reflect current notions of efficiency and effectiveness, and for governments to be more open to democratic accountability, (Westholm & Aichholzer, 2003).

The public sector is clearly under pressure and in order to cope with these challenges, it is necessary to renew and enhance management, organisation, task performance and working procedures at all levels in the public sector. One of the states that have fully adopted the above ideas is Finland. Figure 1 below illustrates the Finish Government's strategic approach in migrating from "traditional" to network-based public administration, (Information Society Advisory Board, 2001).

The European Union focuses mainly on two groups of issues for e-Government:

1. Moving towards modernisation of public administration with the help of ICT, organisational change, and improvement of human resources in public administration in order to deliver sustainable benefits.

2. Achieving innovation in government services and governance to realise the full potential of public administration as key contributor to economic and social development and in meeting future demands, (Working Paper on e-Government Beyond 2005, 2004).
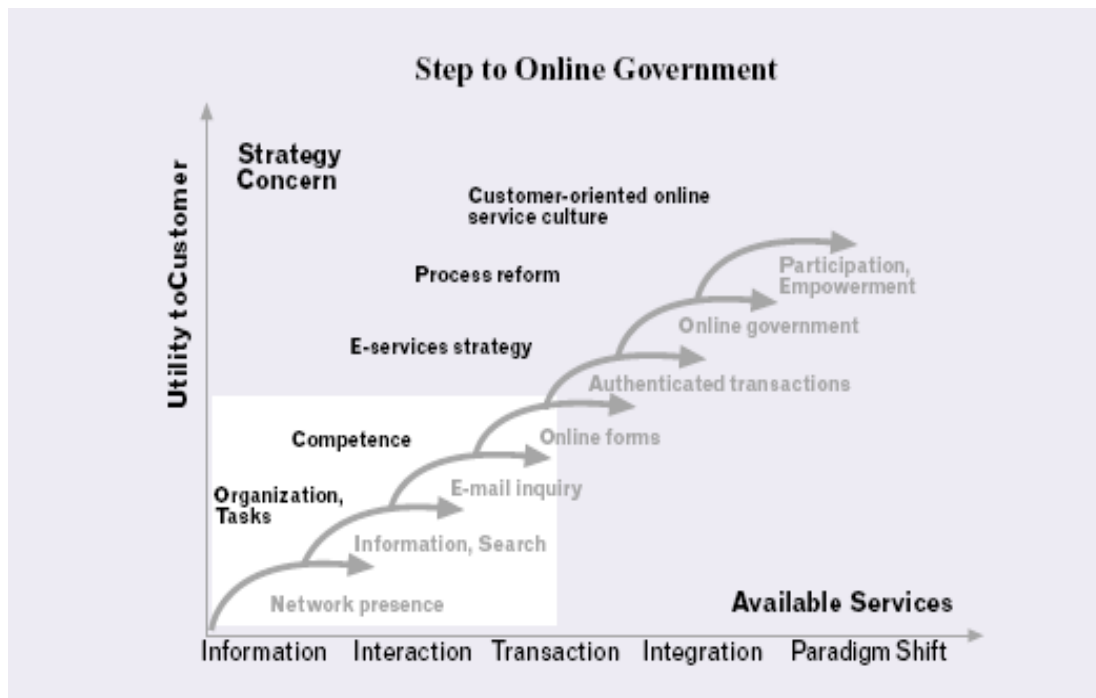
Figure 1, Steps to Online Government

2. Status of E-Government Development

The ideal model of e-governance would be one that helps the government to achieve the objective of good governance by delivering social justice, bringing economic equality and providing equal opportunity of growth to all citizens. According to Eurostat (2004) there is a significant variation across member states as to the extent to which e-Government strategies had been met.

Since October 2004, the focus of the EU e-Government drive has undergone a significant policy shift, with the main e-Government objective being that of improving public administrative efficiency. However the next programming period declares that the goals of the European Commission for the years following 2007 will be the enhancement of participation and democracy. Each country has its own unique e-government strategy tailored to its own requirements and the development procedures vary considerably. Some countries focus on building a relationship between governments and businesses, thus focusing on providing interaction and transactions, while others focus on supporting e-democracy via wide participation, (Siau and Long, 2005).

Despite the power of the new technologies in providing global reach and interactivity, classification of e-Government approaches are largely based on cultural and political rather than technical issues. Such Cultural and political diversity in e-Government across the EU may group as follows, (Millard, 2003):

In Northern Europe there is a history of freedom of information with citizens and states alike considering e-Government as part of an "informed democracy".

The Anglo-Irish group view e-Government as a response to challenges paused by the "new economy" and driven by business needs. Emphasis is given on transactional services that increase efficiency. Pressure from non-government organizations citizen groups concerned about privacy may delay developments.

Central European states have a long tradition of strong civic pride and powerful public sector.

Finally in Southern Europe non-governmental civic institutions play a strong role for e-government evolution. The examples of Barcelona and Bologna as early city driven e-Government implementations demonstrate the balance between local and central government where the latter plays a role in standardisation and funding but not necessarily in development.

3. Measuring e-Government

E-government has attracted significant importance on a global scale and researchers have attempted to develop means by which national e-government efforts can be compared and ranked. Review of several recent studies finds that two major elements have been considered in the development of global e-government measures. One element represents the content, functions, and sophistication of official government websites. The other considers the overall enabling factors that promote development of e-government as well as societal readiness and utilization of e-government services.

Despite the pursuit of measures to assess e-government on a global scale, there is still lack of consensus concerning what factors should be considered and how they should be developed. None of the models used have been formally validated and researchers have not agreed on globally acceptable models, (Moon et al 2005).

One strand of research focuses on the categorization of the different e-government measures happens along two main dimensions: sophistication - simple or complex - and focus of analysis - government websites versus societal enabling capacity, (UNDPEDA 2001, West 2005).

Another strand considers the overall enabling factors that promote development of e-government. The Economist Intelligence Unit in collaboration with the IBM Institute for Business Value has published an annual e-readiness ranking of the world's largest economies since 2000. Their model comprises a weighted collection of nearly 100 quantitative and qualitative criteria, organized into six distinct categories measuring the various components of a country's social, political, economic and technological development, (The Economist, 2003, 2004 and 2005).

Other measures focus on the extent to which a government is prepared to take advantage of the critical role of information technology in economic development, while emphasis is placed on the impact of ICT on the competitiveness of nations, (Kirkman et al 2002 and Dutta et al 2003).

Results of applying the benchmarking models studied indicate that there is a grouping of states that seems to have a geographical pattern: Scandinavian states are getting the first places in the world ranking, states of central Europe follow usually getting places in the second ten, while Southern European states usually rank lag behind. The Anglo-Irish group appears to be divided, with the UK competing with Scandinavians towards the top of the rankings while Ireland usually ranks in the second ten.

4. National e-Government strategies

Tables 1 and 2 below provide a summary of e-Government strategies across the pre 2004 states of the EU. Columns of the two tables show the expected impacts of e-government on the external environment of the public sector. These impacts are of social and economical nature. Rows are the means by which such impacts are to be achieved. These focus on internal procedures of public administration concentrating on technical and organizational matters.

Studying the table referring to strategic vision it is clear that all states aim achieving satisfaction of citizens and businesses. It is also evident that there is a focus on efficiency and competitiveness mainly by states leading world e-readiness rankings. They aim at achieving a good return on investment in e-Government by increasing the efficiency of the public administration and by cutting operational expenses. However, table 2 shows that there are notable differences in the way they attempt to achieve their visions. A large number focuses on back office reorganization, while the Anglo-Irish attempt to improve front-office presence.

Competitiveness is another key issue for states from all geographical divisions. However, the table listing objectives does not provide clear indications as to how they

	User satisfaction	Regional development	Benchmarking	Efficiency / savings	Growth / competitiveness	Democracy / transparency / participation	Social inclusion
Services	Almost all	DE	AU	IR, NL, DE	FI, GB, IR, NL	SW, FI, BE	
Front office				DNK			IT
Back office	POR, ESP, IT, DNK, FRA	DE		DNK			
Interoperability		DE					

Table 1 Strategic Vision for e-Government (for abbreviations see end of paper)

aim at achieving it. Notably Ireland, the country that has shown great progress in this field, appears to be missing from the column.

In some cases though competitiveness might be found hidden behind the objective of user satisfaction, as this would be seen as a major contributor of improvement in the area of competitiveness In seeking to verify any geographical patterns one has to focus on the structure and philosophy of the public administration and not the vision or the objectives each country sets for the evolution of e- government. Administrative structure and level and educational level of public servants or penetration of PC's and Internet usage are factors used to assess a country's e-readiness. These factors can also be used to assess any trends in providing a strategic framework for the evolution of e-Government.

There is a coherence strategic vision, objectives and aims in terms of e-Government evolution for all Scandinavian countries.Sweden and Finland are grouping together following the Scandinavia tradition of placing emphasis on democracy and inclusion, while Denmark appears to focus on reducing operational expenditure through e-Government initiatives. At the same time, all Scandinavian states are trying to achieve regional equity in a means of supporting the decentralized structure of their administration aiming at maintaining its already high standards.

The Anglo-Irish, focusing on a market driven public sector, envision a good return of investment by achieving high efficiency and increased competitiveness based on e-Government implementations.

Central European states envision addressing the problem of Federal states by targeting the efforts in providing the same levels of service countrywide. The road to implementation though varies considerably, with Austria providing in advance a common framework for the provision of services while Germany through its strategic program "Deutchland

online" is targeting equity, in the sense that each Federal State will be in place to provide the same level of services through cooperation.

Belgium, having experimented with back office reorganization, is looking into a coherent strategy for creating conditions for participation and transparency. Similar efforts reflect the French strategy too but with the goal of efficiency in parallel. France also aims at regional development, as it is a major political goal.

The Netherlands focuses on efficiency and competitiveness while Luxembourg aims at both efficiency and democracy.

Southern European states consider that to achieve user satisfaction one must begin from the reorganization of back office procedures and public servants competences.

They aim at democracy and social inclusion even if they do have not a strong background in such areas and the financial benefits are small. These are wider political goals for them though, as they address major social issues such as lack of trust to politicians and institutions. Therefore e-Government can prove its usefulness in topics like transparency and corruption. The geographical patterns identified in earlier sections of the paper are not verified in terms of vision and objectives. Contrary, there are sometimes closer relations between states of different geographical zones. There are for example more similarities between Sweden and Belgium than Sweden and Denmark, or Belgium and Netherlands in terms of vision and objectives in e-Government strategies.

Southern states have different starting points in terms of implementation. In Italy for example, the role of local governments has been crucial from the beginning. Network

	User satisfaction	Regional development / equity	Benchmarking	Efficiency / savings	Growth / competitiveness	Democracy / transparency / participation	Social inclusion
Services	All	2N/ 1C	2S	2C	1N/1C/1 S	2C/1A	2C
Front office	1A/ 1N / 1C/ 2S			2A			SWE
Back office	2C / 1S	BE		All	IT	1C/1N/2 S	
Interoperability	GR			2N / 2A / 1S		1S / 1C	
Legal framework	1C / 1S				NL	SWE	
Management of e gov projects	1A / 1N	IRL		DE			
Enhancement of servants	2C / 1S /				DNK	POR	
Identification / safety	1N/1A/ 2C/3S					FI	
Multi-channel approach	IR						2N/1A/ 1C / 3S
Seamless government	1S / 1N			FRA			
Technological neutrality		2N					2C
Cooperation		1N/ 2C		DE		IT	

Table 2 Strategic Objectives for e-Government

technologies are seen as instruments that support both a socializing effect, promoting new ways of reciprocal exchanges, and a transformative effect leading to alternative modalities through which it is possible to intervene in the political arena (Ciborra, 1993). Italy though was left behind when efforts for transactional services began an effect that spread to all levels of administration.

Further study of strategic objectives relating to e-Government evolution proves that common strategies defy geographical patterns. Southern European states consider that in attempting to achieve user satisfaction and efficiency one must begin from the reorganization of back office procedures and public servants' competences. The same approach is adopted by Denmark who as a world leader is far advanced that its South European partners, but appears keen to reexamine the back office reorganization as a means of achieving efficiency gains. The UK has solid plans of pursuing the same avenue too.

Safety and identification is still an open issue for the majority of states. This is particularly important whether it involves the handling of basic services or those of more elaborate procedures and transactions that might involve personal data and sensitive or critical information.

Interoperability is an issue that arises in the early days of e-Government implementation plans, but it seems that it arises again when advanced states are trying to harvest the gains of their investments.

The use of open source technology seems to be a concern for advanced states only seeking to refine efficiency of application projects and to improve return on investment. However this might be a useful lesson for states that begin their

efforts now, but are hoping to make fast progress by adopting proven good practice.

Finally Multi-channel delivery of services is not an easy issue to tackle once, as states like Finland, Sweden or UK are still looking for the appropriate ways to serve citizens and businesses.

5. Conclusions

By studying national strategic visions and objectives of e-Government development across the pre-2004 EU countries, the geographic patterns defined by governance models appear to be incompatible with the groupings identified. Instead it appears there are three different groups of states:

The first group includes states with strategic goals mainly based on transparency –inclusion - sharing. The aim of efficiency is not predominant here. The group includes Sweden, Belgium, Austria and Italy.

The second, "market-driven" group clearly focuses on the goal of efficiency in the provision of services. Denmark, Ireland, Germany, the Netherlands, Greece and to a lesser degree the UK form the membership of this group.

Finally there is a third group that seems to balance their efforts in achieving both the advantages of the two groups above. Finland, France, Luxembourg, Portugal and Spain, form this last group.

The above division does not take into consideration actual implementation efforts and the final or the ongoing status of e-Government developments in each country. Every group comprises states from every geographical area described in the body of the paper.

States that are of the first group pay attention to social inclusion too. They try to achieve their goals reorganizing back

offices, finding attractive new types of services for participation, seeking to resolve issues of security and adaptation of legal framework.

States that form the second group pay attention to competitiveness too. They try to achieve their goals reorganizing back office, managing e-Government projects and assessing the results and solving interoperability issues.

E-Government means user satisfaction in any case and in more specific terms means efficiency and democracy.

Competitiveness and social inclusion are complementary targets that can mutually contribute to the accomplishment of each other in e-Government implementations.

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Abbreviations used in tables 1 & 2: AU – Austria, BE – Belgium, DE - Germany, DNK – Denmark, ESP – Spain, FI – Finland, FRA – France, GB – Great Britain, IR - Ireland, IT – Italy, NL – Netherlands, POR – Portugal, SW – Sweden.