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# Assessing e-Government Implementation Processes: A Pan-European Survey of Administrations Officials

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**Abstract.** A survey was conducted on behalf of e-Forum among 150 high ranking officials involved in e-government development in all 15 European Union countries. The results provide a unique pan-European examination of perceptions of officials driving the process of shifting towards what is generally referred to as 'e-government'. Issues covered in the survey include authentication techniques, financing e-government investments, benefits and fears among citizens, businesses, administrations and government, barriers and facilitators, priorities within the administrations.

## 1 Methodology

From December 2001 to May 2002, the Forum for European e-Public Services (e-Forum is a non-profit organization funded, for its start-up, by the European Commission) conducted a face to face survey among 150 key representatives of the public sector in all 15 EU countries. Interviewees were identified as key actors in e-government development and belonged mostly to general administration, be it at the national, regional or local level.

The questionnaire included closed and open questions covering various aspects of e-government with particular attention to perceived fears and expectations among citizens, businesses, administration and government as well barriers and potential catalysts in this area.

## 2 Results

The reader is reminded that respondents were all high ranking public servants, so that all indications collected are to be understood as these officials' perception of those indications.

One should also note that the sample size and the sampling method did not aim at providing a representative sample of the targeted population, but rather to collect information helping to assess broad trends in e-Government development in European administrations. As a result, breaking down the data even at the level of nations would



bear no relevance. Only two break-downs of the data will be considered, by groups of nations and by level of government (central versus local or regional).

## **2.1 Benchmarking by the European Commission**

In 2001, EU member States agreed on a list of 20 basic public services (12 for the citizens, 8 for businesses) likely to offer e-government solutions. The Commission will monitor progress in implementation of those services on a half-yearly basis. The survey indicates that a significant number of people (about one third in our sample) in the administration are not fully aware of this new benchmarking initiative. Although about half of the respondents are uncertain whether the benchmarking will actually measure their progress towards e-Government, an overwhelming majority feel that it will increase their motivation to progress faster and will impact their plans or priorities.

## **2.2 Authentication**

One of the central issues in e-Government projects remains authentication techniques. According to our survey, identification by user id and password is clearly the leading approach. Future developments include various means at medium and long term. PKI (Public Key Infrastructures, i.e. certificates sent by e-mail) are well represented, either currently or in future plans. Smart cards technology are significantly considered, but mostly within a few years time. Most administrations have no plans to resort to biometric recognition technologies. There is no spectacular difference in tackling authentication of citizens and businesses.

## **2.3 Financing e-Government Investments**

Almost all respondents indicate that e-Government investments are included in their normal budget. A number of countries in Northern Europe, particularly in the British Isles and Ireland, do report special budgets on top of their usual departmental budgets. Very few countries report a possible co-financing by the private sector. Few respondents rely on benefit from cost reductions induced by e-Government implementation.

## **2.4 Priorities in Creating Benefits for the Citizens and the Businesses**

The improvement of the quality of services was most often ranked as the top priority in developing e-government services for the citizens. Second in importance is to improve citizen's access to administrators and information (even more so in central administrations), followed by goals of improving efficiency, transparency and providing access 24 hours a day, 7 days a week (this is significantly more marked in Southern Europe). Improving cost-effectiveness is ranked higher in Northern Europe. Improving participation of citizens in democracy appears more crucial at the local and regional levels.

As for businesses, improving the quality of the services ranks at the top of priorities, particularly so in central administrations, and significantly more so in Northern Europe. Second to that priority come a group of 4 goals, namely continuous access to services (particularly in Southern Europe), enable services to be provided more cost-effectively (particularly in Northern Europe and in local administrations), improve the efficiency of administrative operations (particularly in Southern Europe and in local administrations) and improve business access to administrators and information (more so in central administrations and in Southern Europe).

## **2.5 Benefits for the Administration and the Government**

As for the administration itself, the main goal is clearly to improve customer satisfaction, thus making the job easier (this is even more the case in Northern Europe). Also quite important is the expected increase in flexibility in working conditions, particularly so in local administrations, and even more in Northern Europe. Other high ranking priorities include personal development in new technologies (particularly in Southern Europe) and improved autonomy in the job (particularly in local administrations and in Southern Europe).

Respondents were also asked what they thought were their government's most important goals and objectives in developing e-government. It appears that administrations, quite homogeneously perceive their government's most important goals as seizing an opportunity to rationalize administrative procedures. Second in importance are improvement of citizens' well-being (particularly in local administrations and in Northern countries) and reduction of cost of administration (significantly more so in Northern Europe).

## **2.6 Fears Induced by the Development of e-Government (As Perceived by Administrations)**

Administrations clearly (and with homogeneity) perceive 3 areas of concern among citizens: loss of information confidentiality, loss of human contact and digital divide (not all citizens will have access to the new services, and not all citizens will be able to use technologies properly). There is also a perceived concern following an increased control of citizens by the government (particularly in Southern Europe).

Regarding businesses' fears, as perceived by administrations, the major area of concern lies with the loss of information confidentiality and increased control by the government (particularly as perceived by local administrations for the latter). There is also concern about the fact that not all businesses will have access. But the loss of human contact and the issue of the ability to use the technologies is viewed as much less a concern for businesses than it is for citizens.

As regards the administration's perception of their own staff's fears, highest ranking concerns include inability to use new technologies properly, increased pressure from users/customers and inability to cope with increased speed (significantly more so in local administrations and in Northern Europe for the latter). Possible job cuts and increased control on individual performance are, to a lesser extent, other areas of concern. Loss of personal contact is perceived by administrations as much less a concern for their own staff than it is for citizens.



Finally, when asked about their perception of concerns induced within their government, administration officials clearly identify 4 areas of anxiety: failure of e-government projects (particularly in Northern Europe), digital divide, high cost of implementation (particularly among respondents working in central administrations) and risk of attacks and fraud by hackers (particularly in Southern Europe). The risk to end up with no real change ('window dressing') is also identified as a concern, particularly by respondents in Northern Europe and in local administrations.

## 2.7 Barriers and Facilitators

When asked to assess the importance of various barriers in the development of e-government, administration officials rank most often concerns about security and confidentiality as most prevalent. Second to that main concern, issues of lack of access among citizens, high set-up costs, lack of co-operation among administration departments and lack of political will and drive (particularly in Northern Europe for the latter) are most commonly identified as barriers in developing e-government.

When it comes to factors likely to facilitate implementation of e-government, one single factor stands out across Europe: strong leadership from the government. To a lesser extent, other factors also call upon political action: dedicated budgets, appropriate legal framework and availability of approved standards (particularly in Northern Europe). Also quoted are better internet penetration in households (particularly quoted within local administrations) and appropriate skills within the administration (significantly more quoted in Southern Europe).

Moreover, respondents were asked what their expectations were about an international association such as e-Forum. These questions provide valuable information as to what high ranking public servants involved in developing e-government are lacking in doing so. The strongest demand is, by far, on sharing experiences and best practices. This indicates that although each e-government project is clearly unique in its setting and constraints, administration officials in charge of their development are seeking experiences and practices elsewhere to feed into their set-up process. The prevalence of their demand in that respect indicates the absence of efficient structures in sharing such information at the European level.

Other salient expectations include: offer a repository for best e-government related documents in Europe (particularly among central administrations), provide an opportunity to develop informal network of colleagues (particularly in local administrations and in Northern Europe) and have a permanent up-to-date list of existing e-government services in European countries.

## 2.8 Priorities within Administrations

Face to face interviews allowed respondents for more spontaneous and open comments about the various issues related to the implementation of e-government. Some of these recurrent comments indicate patterns of opinions which appropriately supplement the main questionnaire.

A number of respondents believe that businesses as well as citizens expect e-government to provide a single point of access to administration and public services. Moreover, there is a recurrent view that e-government interfaces should be thought of

as complements to existing, traditional systems rather than as substitutes, not only to accommodate those who can't access the new services, but also for those who do not want to. Regarding the issues of security and confidentiality, many consider that it is up to governments to build up people's trust and confidence. A number of respondents also stress the fact that efforts to develop e-government solutions should concentrate on back-office issues. It is also the case that many think that too much attention is focused on technical matters at the expense of considerations for a wide array of issues related to the more human aspects, i.e. the various problems to be solved regarding the people both as users and as administration employees. Many also expressed both their conviction that cross-departmental work was to be developed, and their skepticism that such change could really be achieved within the foreseeable future. Further along those lines, provided that e-government development is inseparable from administrative procedures' simplification and, broadly speaking, from a thorough business process reengineering, the transition can only be considered within a long term process which unfortunately exceeds usual political mandates and planning.

### 3 Perspectives

In spite of the necessary caution in using results from a survey conducted on a limited sample, converging views of these hand-picked key officials do provide some very relevant facts about the process at hand within administrations as perceived by those involved. Overall, it appears that officials managing the process of implementation have a well framed view of barriers, catalysts, fears and expectations associated with such process. The issues they raise clearly call for ample reforms which they appear dedicated to undertake. As for the way to achieve these e-government driven reforms, they seem to have developed a rather clear view of the priorities, although their agenda may appear to not necessarily match that of their political leaders, be it in nature or in timing. The shift towards e-government can be seen, to some extent, as the continuation of an on-going process which started with the implementation of computers and data-processing, so that administrations' experience in that area should be seen as a real asset. However, given that e-government consists in developing automated tools to directly interface with citizens and businesses, there is little doubt that the reforms and transformations at hand significantly differ in nature and exceed in amplitude that which lead to computerization.