

## **E-GOVERNANCE DEVELOPMENTS IN EU CITIES. RESHAPING GOVERNMENT RELATION TO CITIZENS**

**Lourdes Torres**

**Vicente Pina**

**Basilio Acerete**

Dpto de Contabilidad y Finanzas  
Facultad de Ciencias Económicas y Empresariales  
Universidad de Zaragoza  
Gran Vía, 2  
50005 Zaragoza  
ESPAÑA  
Tel: +34 976 761801  
Fax: +34 976 761769  
e-mail: [ltorres@unizar.es](mailto:ltorres@unizar.es)

Acknowledgements: This study has been carried out with the financial support of the CICYT through the National Science and Development research project SEC2001-2433.

### INTRODUCTION

During the 1980s and 1990s government policies were concerned with streamlining the public sector and enhancing its efficiency. At the beginning of the twenty-first century the challenge to governments in all countries is to transform themselves in order to engage citizens in democratic activities and to improve citizens' trust in governments (SALA, 2003). E-government developments aim at enhancing democracy and transparency, which ensure a citizen's right to information and respect for citizens' needs<sup>1</sup>.

E-government has become in an umbrella term covering almost all Information and Communication Technologies (ICTs) applications. The United Nations (UN) and the American Society for Public Administration (ASPA) defined e-government as "utilizing the Internet for delivering government information and services to citizens" (UN/ASPA, 2002, p. 1). E-government is defined by the OECD (2003) as "the use of ICTs, and particularly the Internet, as a tool to achieve better government" and by the European Commission<sup>2</sup> "as the use of ICT in public administrations combined with organisational change and new skills in order to improve public services and democratic processes and strengthen support to public policies". At present, e-government may refer to narrower or broader areas: in one, it is defined as online service delivery and, in other, e-government entails the capacity to transform public administration through the use of ICTs, introducing the concept of e-governance.

---

<sup>1</sup> Fifth Global Forum on Re-inventing Government: Innovation and Quality in the Government of the 21st Century México City, 3-6 November 2003.

<sup>2</sup> Moussalli (2004)

The first one associates e-government with public sector adaptations of e-commerce, which focus on transactional services. A United Nations report on "Knowledge Societies" defines e-commerce as the use of documents in electronic form rather than paper for carrying out functions of business or government (such as finance, logistics and procurement) that require interchanges of information, obligations, or monetary value between organizations and individuals (Melistki 2002). As this description indicates, e-commerce is not just about business. In the public sector version it is also associated with the one-way delivery of static information (billboard functions) to citizens and the provision of e-services.

By contrast, the latter deals with the communicative and organizational properties of Internet applications in the public sector. More information delivered in a more timely fashion to citizens is expected to increase transparency and accountability of governments, social inclusion<sup>3</sup> and empowerment of citizens to monitor government performance more closely. This will also contribute to sustaining citizen trust in democratic institutions and processes. This broader approach embraces the concept of e-governance.

Governance meaning the rules, processes and behaviour that affect the way public administrations function, i.e., the organisation and culture of public administration<sup>4</sup>. The European Commission considers that "five principles underpin good governance: openness, participation, accountability, effectiveness and coherence". E-governance includes e-government plus key issues of governance such as online engagement of stakeholders in the process of shaping, debating and implementing public policies. For Oakley (2004), e-governance is a set of technology-mediated processes that are changing both the delivery of public services and the broader interactions between citizens and government. E-governance enables this transformation although social and political frameworks could condition the outcome of the 'e-governance' systems.

This paper presents new and empirical evidence on the nature of e-governance initiatives by thirty five cities with more than 500,000 inhabitants across twelve European countries -which represent around 80 per cent of EU population-, identifying outstanding initiatives. City councils are usually the tier of government nearest to the citizen and dispense some 28 per cent of Europe's gross domestic product in providing their wide range of services (Kinder, 2002). Local governments in the European Union (EU) play a key role in the national pattern of government since they administer the welfare policies, together, in some countries, with regional governments. They have across EU an effective monopoly in many service areas even in the UK where 'externalization' of public services has been extensive.

The findings of this paper could be of general interest, especially to cities interested in determining how their online presence compares to other cities. For Kaylor et al. (2001), in order to make informed decisions, municipalities can and should use the experience of previous innovators as a guide. Although big cities are not always more innovative they have more staff and management resources which enable the development of new tools and ways of providing services and interacting with citizens.

---

<sup>3</sup> See Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions : "The Role of eGovernment for Europe's Future", COM (2003) 567 final. Brussels 26.9.2003.

<sup>4</sup> Similar to the definition used for European governance in the White Paper on European Governance, COM(2001)428, 25 July 2001.

The next section discusses the context in which e-government initiatives have been growing and in the background section some of the most outstanding contributions to the measurement of the development and classification of websites are analysed. The fourth section shows the methodology applied in this study and the fifth, the analysis of results. Finally, the discussion and conclusions sections analyse the main findings of the survey.

## THE CONTEXT

In Western countries, the relationship between government and citizens is in continuous evolution. At present, there is currently an ideological and technical discussion on the legitimacy of government in society. Democratic deficits appeared and gaps between the state and its citizens became obvious to politicians and the general public (Torres, 2004). Service delivery by the public sector has become a key issue in reconstructing the legitimacy of government (OECD 1997c), through the enhancement of transparency, openness and accountability (Alford, 2002). The changes in this field do not encourage radical shifts or transformations in public sector structures and some of them, such as information technology changes, are not inherently part of New Public Management (NPM) doctrine, but could be a sign of a new approach to the relationship between public administration and citizens.

Nowadays, the adoption of web-based technologies to deliver government services has become a global trend in public administration. In the same way as in the 1990s there was global pressure for introducing NPM reforms in the public sector, globalization is creating an offer of interactive initiatives and demands, which are putting public bureaucracies worldwide under pressure to change and innovate the way in which they relate to citizens. E-government inherits the administrative reform policies inspired by NPM reforms implemented throughout the EU over the past twenty years.

In the EU, four public administration models have traditionally stood out (OECD, 1997a; Kickert, 1997a and Torres 2004): Germanic, Southern European, Anglo-Saxon and a fourth group comprising the Nordic countries and the Netherlands, considered a mixed form of the Anglo-Saxon and Germanic types. In accordance with Hammerschmid and Meyer (2003), in the Germanic countries the bureaucracy model remains basically Weberian in the framework of a complex federal system and a complex interrelationship between federal government (*Bund*) and the *Länders*. In this model, administrative practice is marked by an overriding legalistic philosophy (*'Rechtsstaat'*) with Constitutional protection. The *Weisungsprinzip* (principle of directives) establishes a strong hierarchical system both within and between offices with directives which regulate the functions in considerable detail. Southern European countries are influenced by structures inherited from the French legal model (Kickert, 1997b), built around administrative law (Rouban, 1997). Central government defines overarching state rules for field services and there is a unitary treasury system which receives almost all fiscal revenues on behalf of all, central, regional and local public authorities. Even in countries with a high degree of decentralization such as Belgium, Spain or Italy, the central government sets common service features for the whole country, collects the most of tax revenues and maintains offices in provinces and regions. Anglo-American countries emphasize efficiency, effectiveness, and value for money. They are more likely to introduce market mechanisms and notions of competitiveness and envisage the citizen primarily as a consumer of services, as a client. All of them have undertaken important initiatives of devolution -territorial

decentralization and deconcentration through the creation of agencies- and they have adapted private sector experience to the public sector. The Nordic countries are unitary States which belong to a public administration model concerned with meeting citizens' needs. They have a tradition of negotiation and consultation. The search for efficiency and effectiveness involves satisfying citizens' wishes. According to John (2001), at present, there is not such a great contrast between the Anglo-American, Nordic and European continental systems as there was in the 1990s. The European continental countries -especially the Southern EU countries- have created and modernized welfare states, tiers of local government and given them new legal powers.

The reforms in public management that have taken place across Europe are an important factor to take into account when e-government developments are analysed and compared across EU countries. NPM transformations brought about in government organisations include downsizing, decentralisation, management devolution, contracting-out, the replacement of input control by output control, accrual accounting, performance measurement, the empowerment of citizens and employees, the one-stop shop (single window), the separation of politics and administration and the greater use of information technology. For Torres (2004), despite the absence of generally accepted packages of NPM reforms, the transference of public management practices from Anglo-American to other countries and the identification of "best practices" across public administration contexts is evident.

## BACKGROUND

Although e-government initiatives are recent, they have become a rapidly developing field of empirical study. Some research has already been carried out into the evaluation of e-government efforts at local, regional and central government levels. These efforts share a general concern with identifying objective measures by which we might assess the quality (defined in various ways) of e-government.

The Cyberspace Public Research Group 2001's, or CyPRG's, Web Attribute Evaluation System (WAES) provides two broad dimensions (interactivity and transparency) for evaluating US federal websites that could quite easily be modified for evaluating websites of any level of government (or even the private sector).

For Tat-Kei Ho (2002), under the e-government paradigm public managers shift from emphasizing producer concerns such as cost-efficiency, to focusing on user satisfaction and control, flexibility in service delivery, and network management with internal and external parties. For this author, the orientations of city websites provide evidence that this paradigm shift is indeed taking place in city governments. 1) If a city maintains the traditional bureaucratic paradigm, its website organization tends to be administratively oriented. Information is organized primarily according to the administrative structure of the government and does not reflect substantial rethinking of the bureaucratic process. 2) Cities that have shifted from the bureaucratic paradigm to the e-government paradigm design their websites differently. They tend to use two common approaches, commonly referred to as "portal designs." 2a) The first is the "information-oriented" approach which applies the concept of "one-stop shopping service" by offering a tremendous amount of content on the home page including the city budget, demographics, calendar of local activities, major tourist attractions, official contacts, press releases, and employment opportunities. 2b) The second is the "user-oriented" whose design goes one

step further by categorizing information and services on the web according to the needs of different user groups.

Wimmer (2003) distinguishes a common typology of e-government services: information, communication and transaction services, as well as three generic application areas: administrative affairs (e-administration), political participation (e-democracy) and everyday needs (e-Assistance).

West (2004) studies e-government and citizens' attitudes analysing e-government usage and the exposure of managers to e-government questions and found that there was a significant increase in the belief that government is effective in those who visited federal government Web sites. This study suggests that in some respects, digital government has the potential to transform service delivery as well as citizens' attitudes.

Conversely, Wong and Welch (2004) find that e-government often only exacerbates the existing nature and attributes of public bureaucracies. E-government accountability is more related to bureaucracy styles than to technology per se. For Margolis and Resnick (2000) the Internet tends to reflect and reinforce the patterns of behaviour of politics.

Nowadays, there seems to be a consensus between institutions, consultancy firms and academics about the different stages of e-government that can be used to measure its degree of development and implementation (The Australian National Audit Office (2001), Moon (2002), The National Audit Office –NAO- (2002), UN/ASPA (2003), Santos and Heeks (2003) and West 2004). They identify a four or five-stage model of e-government, which distinguishes where different government organizations are on the road to transformation: (1) the billboard stage; (2) the partial service delivery stage; (3) the portal stage, with fully executable and integrated service delivery; (4) the seamless stage, with full integration of e-services across administrative boundaries and (5) the interactive democracy stage. The fifth stage would be a landmark in the transition from e-government to e-governance through the introduction of e-democracy tools. Stage 1 is the most basic form of e-government and uses IT for disseminating information, simply by posting information or data on the Websites for constituents to view. Stage 2 is two-way communication. In this stage, the government incorporates e-mail systems as well as information and data-transfer technologies into its websites. In Stage 3, the government allows online service and financial transactions – to renew licenses, pay fines, and apply for financial aid- by completely replacing public servants (Hiller and Bélanger 2001, Layne and Lee 2001). In Stage 4, the government attempts to integrate various government services vertically (inter-governmental integration) and horizontally (intra-governmental integration) to increase efficiency, user friendliness, and effectiveness -integrating seamless online and back-office systems. Stage 5 involves the promotion of web-based political participation, in which government Websites include e-governance tools such as e-voting and e-democracy

Many other studies have appeared, focused on e-citizenship (Hill and Hughes, 1998; Bucy and Gregson, 2001; Papacharissi, 2002), e-democracy (Coleman et al., 1999; Hague and Loader, 1999; Tambini, 1999; Dahlberg, 2001; Karnarck and Nye, 2002), e-legislatures (Coleman *et al.*, 1999), cyberpolitics in international relations (Hughes, 2002), and so on. Several studies of government presence on the Web have also been undertaken (UK National Audit Office, 1999, 2002; Accenture, 2001; West, 2000; Holliday, 2002; UN/ASPA, 2002), and municipal activity has been surveyed (Moon, 2002).

## METHODOLOGY

In this section, we describe the method by which we gathered information about the cities studied and the depth and breadth of the services and other features they currently offer online. In this paper, we identify the following e-government dimensions:

**E-Services.-** This term describes the use of electronic delivery for government information, programs, strategies and services. These are available on-line 24/7. In many cases it represents a modernised front office but does not necessarily include a redesigned back office capacity. E-services emphasise an innovative involvement of the citizen as a customer. As we have mentioned above, the narrow approach to e-government is associated with e-services and includes little more than gathering the information, downloading files or making online transactions.

**E-Democracy.-** This refers to activities that increase citizen involvement including virtual town meetings, open meetings, cyber campaigns, feedback polls, public surveys and community forums (such as through e-consultation and e-voting). According to the OECD (2003), e-democracy can be divided into two distinct areas: one addressing e-engagement -the use of ITCs in aiding citizens' access to information, consultation and participation- and the other addressing e-voting.

Our empirical survey focuses on e-services and e-democracy together with the web maturity. The research has been carried out on the websites of thirty-five EU cities including some of the biggest cities, all the national capitals and other cities with high administrative relevance at country level, which belong to Austria, Belgium, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain and the UK. They were accessed during the second half of 2003 and the first half of 2004, and a range of 173 items of information were analysed (See Table 1 and 2). Sixty-seven services delivered through the Internet were identified and grouped according to the local public service classification carried out by Torres and Pina (2001), as well as sixty-six e-democracy features and six web maturity items.

E-Service is concerned with to what extent local governments have developed their presence online. It measures the use of the Internet to extend, diversify and, where appropriate, improve the attention that councils give to citizens. E-Service score is obtained as the product of: e-service breadth (EsB), which is the number of services offered through the Internet, taking into accounts whether these services are being provided by the city<sup>5</sup>; and e-service depth (EsD,) which classifies services according to the level of interactivity or the possibility of completing each of them through the Internet. Services are classified within EsD into three categories in accordance with

---

<sup>5</sup> This score has been built applying the Cooke (1989) index. This index is a ratio of actual scores awarded to a company –in our study e-services considered or the local authority of each city– to the scores which that company was expected to earn. Consequently, an entity is not penalised for those items that are not relevant to it. Thus, the maximum score (M) entities can earn varies:

$$TD = \sum_{i=1}^m d_i, \text{ where } d = 1 \text{ if the item } d_i \text{ is disclosed and } 0 \text{ if not; } m \leq n$$

$$M = \sum_{i=1}^n d_i, \text{ where } d = \text{expected item of disclosure; } n = \text{the number of items which the entity is expected to disclose.}$$

Thus, the total index (TI) for each entity then becomes TD/M (number of disclosures / number of items applicable).

G2C interactivity<sup>6</sup>: billboard –one way-, interact –two ways- and transact –with some or full elements of case handling service.

E-Democracy provides information about the council, councillors, elections and electoral services, and financial reporting. By e-democracy we mean the use of the internet and related technologies to facilitate the engagement of citizens in consultation and community planning. E-democracy initiatives in the web sites have been divided in those which enhance transparency: political dimension of webs and citizen dialogue, and those which enhance financial accountability. E-Democracy value is calculated adding values of PD, CD and FA (see Table 3)<sup>7</sup>.

- Political dimension (PD) deals with the use of the Internet for bringing the government political agenda and the Mayor closer to citizens and the implementation of bias-free policies for the dissemination of information. Almost all local governments are undertaking significant efforts to keeping citizens informed about their activities and achievements through initiatives such as the ability to interact more directly and easily with members of the council, finding out what the council is doing, participating in local debate, the provision of new channels to those excluded from services, and to make access easier for people with disabilities.

- Citizen dialogue (CD) aims at applying ICTs as a means of improving communication with citizens and stimulating participation and engagement in political and civic processes. Key benefits which are expected to be achieved are wider participation, the reduction of social exclusion and greater variety, choice and convenience of access for customers<sup>8</sup>.

- Financial accountability (FA) aims at keeping citizens informed about the efficiency, effectiveness and performance of governments, since citizens would not be able to hold their government accountable if they do not know what the government is doing with the taxpayers money, in order to determine the sustainability of service delivery and value for money issues.

Web Maturity (WM) embraces those website aspects that provide benefits for citizens when visiting websites. Features included in this variable (see Table 2) make the use friendly and it is also an indicator of website sophistication<sup>9</sup>.

---

<sup>6</sup> Each service included in these categories is given value '1', '2' or '3', respectively. For every city, EsD index is calculated aggregating the value given to the services identified in its local website and dividing that addition by the services identified multiplied by three, that would be the value if all the services of the city were online at *transact* level

<sup>7</sup> Similarly to WM, the items included in the three components of E-Democracy are given '1' if they appeared in the website and '0' if not. In a few cases, mainly related to accesibility or disclosing of e-mails of councillors, value '0.5' is given.

For each city ED value is obtained applying the Cook index adding scores of PD, CD and FA factors and the maximum score fixed, M=60.

<sup>8</sup> In the cases that the web site do not offer accesibility version, the factor 'accesibility for disabled people' has been tested using WebXACT engine [<http://webxact.watchfire.com/>], that evaluates contents of web pages for accesibility according to The Web Content Accessibility Guidelines (WCAG) that is an international set of guidelines produced by the World Wide Web Consortium (W3C), the industry consortium that defines most of the standards in use on the web.

<sup>9</sup> Scoring of this factors has been '1' when they are identified in the website, and '0' if not. In some cases they have been given '0.5' when the factor appears but not in a satisfactorily approach.

In each city WM index is calculated applying the Cook index accumulating scores of the WM factors, but the maximum score is fixed, M=6.

Adding E-Service, E-Democracy and Web Maturity, with weights of 45%, 45% and 10% respectively, the Total Score is obtained. It measures e-government/e-governance developments in the cities studied.

## ANALYSIS OF RESULTS

As can be seen in Table 1 almost all city governments has implemented e-government initiatives albeit with different levels of development. The most common service offered is municipal tax payment, which has been implemented by 85.7% of cities. Other services such as booking of sport facilities, public employment, public procurement, permission for loading, unloading, driving in restricted areas, complaints about public nuisances and catalogue of libraries are implemented in more than 70% of cities. Most of them are administrative procedures related to general, cultural, leisure and sports services.

The lowest percentage is shown by the transact stage, which means limited customer orientation. This category embraces services such as payment of business rates, lost property, collection of bulky items, reporting a street fault and payment of taxes. The citizen can fill in the form with personal and other data related to the service required and send it electronically.

To speed up the process of service delivery the European Commission has recently approved a list of 12 public services to citizens as a guideline for benchmarking (E-Munis, 2002). Some of them are already implemented by more than 50% of the cities studied (Income taxes, Public libraries, Job search, Personal documents, Application for building permission, Birth and marriage certificates and change of address notification). The others (Social security benefits, Car registration, Declaration to the police, Enrolment in higher education and Health-related services) are not always the competence of local governments in the countries studied.

### INSERT HERE TABLE 1

Online access has advantages that are impossible to replicate offline, such as the drawing together of information, 24/7 accessibility, independent search capacity and interactive policy consultation and this represents an improvements in the city service delivery by itself. Perhaps because of this, some websites includes, under the label “Online services”, services in which only limited interaction is allowed, such as the downloading of forms or instructions and guidelines for the filling in of applications. These “window dressing” practices mean e-government developments are becoming essential parts of local government governance approaches and a sign of modernity, quality, openness and responsiveness to citizens’ needs.

Based on the product of EsB and EsD, the E-Service Score provides a measurement of developments in e-government. In Table 3 the following groups can be distinguished:

- Those cities in which most services are included in the interact and transact categories (E-Service Score > 35%): Vienna, Stuttgart, Birmingham, Munich, Zaragoza, Essen, Barcelona and Sheffield. This category also shows in almost all cities the highest number of services provided through the Internet.
- Those cities in which a relevant number of services are included in the interact and transact categories, although the number of services classified in the billboard stage is clearly higher than in the first group ( $35\% \geq$  E-Service



Score > 26%): London, Dublin, Cardiff, Genoa, Cologne, Valencia, Glasgow, Edinburgh, Amsterdam, Berlin, Madrid and Luxembourg. As in the first category, the EsB score of this group is above the average.

- Those cities in which billboard is the prevalent category, although some services are provided in interact and transact ways ( $26 \geq$  E-Service Score > 20%): Leeds, Seville, Hamburg, Brussels, Frankfurt and Rome. The EsB score in this group is around the average.
- Those cities in which there is the lowest level of services labelled as interact or transact ( $20\% >$  E-Service Score): Belfast, Lisbon, Lyon, Marseille, Naples, Milan, Paris, Palermo.

Within cities there are significant differences in the access to the Internet. As Table 3 summarizes, most municipal governments seem to be at the billboard stage, a relatively small portion of the municipal governments has moved to a real interact (two-way communication) stage, and only a few are entering in the transact stage (service and financial transactions). Local governments frequently use the Internet to offer information to citizens, which reduces the costs of dissemination and improves the effectiveness of communications but it is less common to use the Internet as a medium for two-way communication, the possibility of interacting with government online being much more limited.

INSERT HERE TABLE 2

Table 2 shows the scores related to the e-democracy dimension of e-government/e-governance, which aims at enhancing the engagement of citizens in city affairs, the transparency and the public accountability. The items included in this category have been grouped in those related to the political dimension of the web site; those which encourage citizen dialogue with governments and reduce the digital divide, making the web site friendly and accessible to people with little skills in handling computers, disabilities or foreign; and those which enhance financial accountability. All of them seek to bring governments closer to citizens.

As can be seen the highest scores are for billboard information in the political dimension, some of them highly sensitive to political bias, such as Mayor biographical information, photographs, press release, council members, local government commissions, structure and function of governments and minutes and reports. In the citizen dialogue dimension, only tourist information and the agenda of the city, catch up 70%. By contrast, just around 60% offered the email of cabinet members' e-mail and less than 50% the e-mail or telephone of the council members, so that an ordinary citizens could email a person in a particular department or commission other than the Webmaster to pose questions of government officials or request information or services. Government websites score better in the sources of official information than in mechanisms for citizen action.

Local governments are using their websites mainly as a way to disseminate reports, publications, newsletters, rules, procedures and other information about government decisions, which makes them easily available to the online community. This use of e-democracy facilities is quite similar to the billboard stage of e-service. It means an advance since improves the effectiveness in the delivery of information to citizens and reduces costs, but it does not take advantage of ICTs potential for the transformation of the ways in which governments relate to citizens.

Except for e-promotion aspects of the city, the citizen dialogue category, which embraces initiatives against the exclusion and digital divide, is underdeveloped. Although several sites display links to information about the Bobby program<sup>10</sup>, according to our Bobby analysis, almost all cities show low degree of accessibility, since only 37.1% of government websites present some degree of accessibility to the disabled and just 20% are accessible in more than one language. Clearly, more work needs to be undertaken to make government sites accessible to all who wish to use them, which is one of the most easy way of fighting against digital divide, since just political will is needed.

Other relevant issues related to the improvement of citizen-government dialogue are forum and democratic engagement and participation initiatives, which only have implemented one-third of the cities. Notwithstanding, 65% includes boxes of complaints about public services, which represent a way of governmental contact with citizen needs.

Financial accountability represents one the most relevant components of public accountability. The disclosure of financial reports legally required in each country to local governments is in all cities underdeveloped. Within the first ten cities with the highest scores in this group eight are Anglo-Saxon and two Spanish. The former include in the web the financial reports required by their own legal dispositions and just the latter, Barcelona and Madrid, provide additional information not legally required. Budgetary information is disclosed by less than 50% of the web sites, even though all cities must elaborate this information. Statistics about the city is the item with best scores, 60%, but is the element of the group with highest sensitiveness to political bias. Notwithstanding, this percentage is very low since could means that the local government does not know the main figures of the city or that it is not interested in their dissemination. Conversely, the most cities show very little about financial performance in their webs. So, at present, it seems that the Internet has not brought about noticeable improvements in public financial accountability.

INSERT HERE TABLE 3

Overall consideration of e-democracy aspects shows a first group of nine cities with a total score over 50%: Glasgow, Edinburgh, Dublin, Amsterdam, London, Barcelona, Leeds, Birmingham and Sheffield. All of them are Anglo-Saxon cities together with Amsterdam and Barcelona. These cities have developed web sites with more sensitiveness towards citizen needs and their engagement in government affairs. The second group of fourteen cities with scores over 30%: Berlin, Vienna, Essen, Madrid, Luxembourg, Milan, Munich, Frankfurt, Stuttgart, Palermo, Cardiff, Cologne, Paris and Lisbon. This group is made up by cities with low degree of financial accountability. In this group there is the most of Germanic cities and Vienna. Finally, the third group, twelve cities with scores below 30%, is made up by the rest of EU continental cities with low developments in all aspects of the e-democracy dimension.

The results show that the e-democracy dimension of e-government fits better into the Anglo-Saxon and Nordic public administration styles –Barcelona is an exception- more concerned with customer needs than in the EU continental bureaucratic style based on administrative laws and legal procedures. Financial accountability is the most important

---

<sup>10</sup> A disability screening mechanism that serves to verify if a site is properly accessible to disabled citizens (<http://bobby.watchfire.com>)

lack of EU continental local governments, which some cities, such as Barcelona, overcome with political will.

The total score index synthesizes e-service, e-democracy and web maturity indexes in the proportion of 45%, 45% and 10% respectively. E-government/e-governance total score shows quite moderate results, since just nine cities are over 45% of total score. From the total scores the following groups can be distinguished (Exhibit 1). The first group is made up by nine cities, six of them Anglo-Saxon, –Birmingham, Barcelona, Amsterdam, London, Glasgow, Edinburgh, Vienna, Dublin and Sheffield- those with scores over 45%. In a second group there are five Germanic cities together with Leeds and Madrid all of them with scores from 45% to 38%. The third group is made up by EU continental cities plus Cardiff with moderate-low scores between 38% and 28% in all indexes. Finally, the fourth group, with scores below 28%, shows e-government developments which hardly go beyond billboard stages with any added value over the traditional way of relationship government-citizens.

The comparison of the means of the first and second groups shows that e-service and web maturity developments are quite similar, placing the difference in the e-democracy field. To great extent the composition of the first and second group mach up with the public administration style categories mentioned in the context section. The former includes Anglo-Saxon and Nordic cities–except for Barcelona and Vienna- and the latter Germanic cities –except for Leeds and Madrid. The rest of groups are made up of Southern European cities in which the French public administration style is prevalent and conversely to previous groups, in these ones, the biggest differences come from the degree of implementation of e-services instead of e-democracy tools.

Overall figures of Table 3 show bigger differences in e-democracy than in e-service developments. This is because e-services fit better into all public administration styles than those related to e-democracy, which requires a shift towards public administration models more concerned with citizen opinion.

INSERT HERE EXHIBIT 1 and 2

## DISCUSSION

The analysis of 35 websites of some of the most populous EU cities shows that all city governments are involved in e-government initiatives albeit with different levels of development. The results at e-service dimension show that EU continental cities – Germanic plus Southern European cities- are predominant in the first level of e-service scores but also in the latter, whereas Anglo-Saxon cities plus Amsterdam are spread throughout the three first groups. So, a first finding seems to be that there is not clear relationship between public administration styles and e-service developments. E-service initiatives at present stage, i.e. understood as the translation of e-commerce to the public sector, fit well into any kind of public administration especially at billboard or interact – downloading- stages, since they do not entail changes in the style of relationship government to citizen (G2C).

Other findings to be highlighted are the relative emphasis that local authorities are giving to e-service especially in EU continental cities. However, few websites show clear signs of e-democracy and costumer case handling services. While some benefits may be visible in terms of increasing citizens' choice and facilities of access to services 24/7/365, it is not clear whether local e-government is increasing citizen participation

or having impact in terms of e-democracy. For Pratchett (1999), in emerging structures of local governance the institutions of elected local government have the potential to fulfil three complementary roles: local democracy, public policy-making and direct service delivery. Although ICTs could effectively develop all three roles there is a systematic bias which favours service delivery applications and do not pay sufficient attention to others. The most local governments are concerned with the translation from the private sector of e-commerce tools for giving themselves an image of modernization and responsiveness, similar to those of the private sector, rather than with the introduction of real changes in the way in which public administrations interact with citizens, even in countries with large customer orientation tradition as the Anglo-Saxons are. At present most e-government initiatives are still viewing people from a passive perspective -to whom something is given or from whom something is required-, and not as citizens. The jump from administratively oriented towards user-oriented organizations requires to give citizens the opportunity to influence and mould information which only transact level permits.

Analysing the components of e-democracy we can see that “political dimension” items show higher scores than those of “citizen dialogue” in all cities except for Madrid and Valencia, which present very low scores in these blocks of items. A large part of the information provided by governments in “political dimension” tends to focus on accomplishments of Mayor and the political party in charge. So, even though “political dimension” in e-government sites enhances transparency and accountability of local governments, the dissemination of information and enables the engagement of citizens, we wonder whether it is possible for a government to offer bias-free information to its citizenry, since the distribution of information is carried out based on the discretion of government which decides what and how the information is disclosed.

Other aspect of e-democracy dimension is to what extent does e-government affect accountability of public bureaucracies? The analysis carried out show that EU local government web sites maintain in almost all cases –the government of Barcelona is an exception- the domestic trajectory, following accountability levels based on domestic traditions. Our analysis of the e-democracy dimension shows that developments in this issue and changes in accountability levels depend on the context and characteristics of public administration styles. In the financial accountability field, information does not act out of context either. The differences in financial accountability among local governments found in this study –higher in Anglo-Saxon than in the EU continental cities- do not come from different uses of ICTs but from their public administration styles and the legal requirements in each country (Torres, 2004), and these differences cannot be narrowed simply by the introduction of web-based e-government technology. So, the question of whether e-government -and especially e-democracy- promotes accountability cannot be answered completely without knowing the kind of bureaucracy, since e-government accountability seems to be more about bureaucracies than technology innovation. The introduction of e-government without the corresponding institutional reform of public administration systems only leads to limited success in enhancing accountability. For Margolis and Resnick (2000) the Internet tends to reflect and reinforce the patterns of behaviour of politics. These results are similar to prior researches such as those of Kraemer and Dedrick, (1997) and Welch and Wong (1998).

According to Dunleavy et al. (2003), potential forces for spreading e-government policies are: the transference of e-government experiences across countries which leads to a high probability of similar responses –globalization- and the development of NPM

ideas in many democracies which stress the assimilation of public sector organizations into a desired general business management model. Notwithstanding, for Pollitt and Bouckaert (2000) and Torres (2004) although multilateral organizations have spread the Anglo-American experience all over the world and have pressed for imitating similar reforms worldwide, in EU continental countries there have not been global NPM reform packets like in Anglo-American countries, but rather a set of initiatives and readjustments, since the Anglo-American NPM model challenges the traditional core concept of a “good public sector” in the Nordic countries, the German-Prussian civil obedience to government in the Germanic countries, and the idea that the public sector should watch over *l'intérêt général* in the Southern European countries -especially in the fields of externalization of services, human resources management and introduction of market mechanisms in service delivery.

In the European continental countries some aspects of NPM have not yet been applied sufficiently, specially with regard to the need for organisation the public administration according to the customer perspective. This is because EU continental local governments are fitting e-service initiatives into their bureaucratic models overlapped with their traditional administrative systems. For Tat-Kei Ho (2002), e-service could be compatible with bureaucratic administration styles since it allows the organization of information in web sites according to the administrative structure of the government without substantial rethinking of the bureaucratic process. Conversely, e-democracy initiatives require the change towards more participative and customer oriented models. So, one main challenge for EU continental governments is to reassessing the relationship between governments and citizens, to respond in a more efficient and transparent way to the citizens' needs. This requires to identify user needs and to design e-government/e-governance projects according to the identified target users. The contents of e-democracy that most EU continental local governments are including in their web sites show sensitivity to this aspect, although, as the results shown, in most cases there are a gap in the development of these issues with regard to Anglo-Saxon cities.

Public administration styles and NPM initiatives contribute partially to explaining the changes observed in e-government among the local governments studied, since the results of our study show that e-service and e-democracy initiatives are compatible with the three public administration styles that in the EU exist. Anglo-Saxon cities are predominant in the first group, but we also find cities included in the first and second groups, which belong to European continental countries labelled by Hood (1995) as non-leaders in the implementation of NPM reforms such as Spain, Austria and Germany and between the first ten cities in the e-service scores there are six EU continental cities. Since few governments disagree about crucial NPM postulates such as to improve service delivery or to enhance accountability, those countries with public administration styles reluctant to the introduction of some NPM reforms find in e-government initiatives a suitable tool to strengthen those policies addressed to achieve these goals when they are compatible with their public administration styles mentioned in the context section. That means that e-government improvements in e-service and e-democracy areas are taken place within a pattern, called by West (2004), of “normal politics.” Instead of changing the nature of organizations, as some authors forecast, the role played by information technology in the EU seem to reinforce existing tendencies, and by itself they are not affecting organizational structure in significant ways. So, the believe spread by multilateral institutions that the Internet would transform the relationship between citizens and governments is not being confirmed by the facts. For

Norris (2004), at present, there is scepticism about the power of technology to alter bureaucratic government organizations, deep-rooted patterns of civic engagement, and the structure of the state.

So, this study shows that public administration style is just an enable of e-government developments but it does not necessary mean better performance. Political will is the prevailing factor in case of Barcelona and Vienna and other EU continental cities with relatively good scores such as Stuttgart, Berlin, Madrid, Munich and Essen. Likewise, the lack of political may explain the scores of some Anglo-Saxon cities such as Belfast and Cardiff which show e-government scores below many EU continental cities. Thus, the scores in e-service and e-democracy obtained by cities from different public administration styles show that public administration styles do not prevent e-government developments although enable e-democracy initiatives. The interest in bringing government closer to citizens, making it more transparent, participative and accountable prevails over public administration style determining factors, especially in local governments which are the administration tier closest to citizens.

## CONCLUSIONS

During the last ten years municipal governments have greatly expanded their presence on the Internet in the EU, so that in these countries it has become easier for citizens to locate and download official information, to communicate with public officials through email, and to conduct transactions through the Internet. Furthermore, e-governance can achieve many functions, especially those of providing information, acting as a channel linking the communication of citizens and public officials, and facilitating citizen actions. The comparison of the websites suggests that these succeed primarily through the former functions rather than the latter.

It should be noted that the different stage definitions are only a conceptual tool to examine the evolution of e-government. The adoption of e-government practices may not follow a true linear progression. A government may initiate stage 5 of e-government (political participation) without full practice of stage 4 (integration). It is also possible that government can pursue various components of e-government simultaneously. The framework simply provides an exploratory conceptual tool that helps one understand the evolutionary nature of e-government.

Even though the most of local governments have developed e-government at billboard stage and putting services online, the local government web sites analysed are predominantly non-interactive at e-service level and non-deliberative at e-democracy level. So, e-government does not seem that it goes to reshape governance in the short term.

According to the definitions quoted in the introduction section, e-government should be more than the Internet use or online service delivery. However, the most developed websites studied remain at a moderate stage and none of them making full use of the available technology. The e-government in almost all the cities studied is an extension of their own government style, with potential benefits in speed and accessibility 24/7. Only Anglo-Saxon and isolated EU continental cities, such as Barcelona and those included in the second group, show moderate e-democracy developments.

There are opportunities for ICTs to enhance the delivery of services and governance in local governments, but the narrow focus of the ICT networks concentrates technologies

around the management and delivery of services rather than ICT applications in other areas because they do not fit so good within the values and core beliefs of each public administration style. In the European continental countries the application of ICTs to service delivery is comparatively more developed than e-democracy dimension since it has a neutral effect on the traditional administration style of their countries. If e-governance is to succeed in transforming the citizens' experience of both public services and of e-democracy it needs to pay greater attention to demand rather than supply-side issues and aims to 'put people first'.

The Internet represents an aid to good governance by increasing government transparency, efficiency, and customer-oriented service delivery, but it is not running as a radical medium facilitating citizen consultation, policy discussion, or other democratic inputs into the policymaking process. Our study shows that technology is behaving as an enabler within pre-existing social structures and political functions.

Finally, e-government needs to be integrated into broader public management reform processes and broader information society activity. It offers the potential to bring citizens closer to their governments, regardless of the type of political system that a country has. Notwithstanding, ICTs have not had a dramatic impact on the practical reality of present politics, even in countries such as the United States<sup>11</sup> at the forefront of digital technologies. This perspective shows the difficulties of achieving radical change to public administration systems through technological mechanisms.

---

<sup>11</sup> Norris (2004)

## REFERENCES

- Accenture. 2001. *Rhetoric vs Reality: Closing the Gap*. <http://www.accenture.com/> [Accessed 1 August 2002].
- American Society for Quality. (2001). *American Customer Satisfaction index*, 1st Quarter. Retrieved from <http://www.theacsi.org/>
- Applegate, L. M. 1994. Managing in an Information Age: Transforming the Organization for the 1990s. In *Transforming Organizations with Information Technology*, edited by Richard Baskerville, Steve Smithson, Ojelanki Ngwenyama, and Janice I. DeGross, 15-94. Amsterdam: Elsevier Science.
- Aucoin, P. (1990). Administrative Reform in Public Management Paradigms, Principles, Paradoxes, and Pendulums *Governance* 3, 115-137.
- Australian National Audit Office *How to decide to use the Internet to deliver government programmes and services*, Australian National Audit Office, April 2001
- Bucy EP, Gregson KS. 2001. Media participation: a legitimizing mechanism of mass democracy. *New Media and Society* 3(3): 357-380.
- Brudney, J. L., & Selden, S. C. (1995). The adoption of innovation by smaller local governments: The case of computer technology. *American Review of Public Administration*, 25(1), 77-86.
- Coleman S, Taylor J, Van de Donk W. 1999. Parliament in the Age of the Internet. Special issue of *Parliamentary Affairs* 52(3).
- Cooke, T.E. (1989). Disclosure in the Corporate Reports of Swedish Companies. *Accounting and Business Research*, 19 (74), pp. 113-124.
- Cyberspace Public Research Group. (2001). Web attribute evaluation system (WAES). (Available: <http://www.cyprg.arizona.edu>.)
- Dahlberg L. 2001. Democracy via cyberspace: mapping the rhetorics and practices of three prominent camps. *New Media and Society* 3(2): 157-177.
- Damanpour, F. 1992. Technology and Productivity: A Contingency Analysis of Computer in Local Governments. *Administration and Society* 11(2): 144-71.
- Dunleavy, P; Margetts, H.; Bastow, S and Tinkler, J. (2003): E-government and policy innovation in seven liberal democracies Paper for the Political Studies Association's Annual Conference 2003 15-17 April, Leicester University
- Edmiston, K.D. (2003): State and local e-government. Prospects and Challenges *American Review of Public Administration*, Vol. 33 No. 1.
- E-Munis 2002. *Standards for e-documents, e-procedures and e-services Relevant standards for local e-government applications*. Deliverable 12. Sankt Augustin, Denmark
- Hague BN, Loader BD (eds). 1999. *Digital Democracy: Discourse and Decision Making in the Information Age*. Routledge: London. Hawes
- Hill KA, Hughes JE. 1998. *Cyberpolitics: Citizen Activism in the Age of the Internet*. Rowman and Littlefield: Lanham, MI).
- Hiller, J, and Bélanger, F. 2001. *Privacy Strategies for Electronic Government*. E-Government Series. Arlington, VA: PricewaterhouseCoopers Endowment for the Business of Government.
- Holliday, I. (2002): Building e-government in East and Southeast Asia: regional rhetoric and national (in)action, *Public Administration and Development*. 22, 323-335.
- Hood, C. (1991). A Public Management for all Seasons? *Public Administration* 69, 3-19.
- (1995). 'Emerging Issues in Public Administration', *Public Administration* 73, 165-183.
- Hood, C. and Jackson, M. (1991). *Administrative argument* Aldershot, Dartmouth.
- Horner, R. (1999). Meeting demands: Citizens, empowered by technology-driven access to customized services, are now demanding similar service from state and local government, *Minnesota Cities*, 84(4),5-6.
- Huang,C.J. and Chao, M.H. (2001): Managing WWW in public administration: Uses and Misuses *Government Information Quarterly* 18 357-373
- Hughes CR. 2002. China and the globalization of ICTs: implications for international relations. *New Media and Society* 4(2): 205-224.



- Innovative Public Services Group, IPSG. 2002. *Quality activities in the public administrations of the European Union member states* Subdirección General de Gestión de Calidad. INSCAL. Ministry of Public Administration. Spain
- Jaeger, P.T. (2002): Constitutional principles and E-Government: an opinion about possible effects of Federalism and the separation of powers on E-Government policies *Government Information Quarterly* 19 357–368
- John, P. (2001): *Local governance in Western Europe* SAGE publications, London.
- Kamarck EC, Nye JS (eds). 2002. *Governance.com: Democracy in che Information Age*. Brookings Institution Press: Washington, DC.
- Kaylor, C., Deshazo, R. and Van Eck, D. (2001): Gauging e-government: A report on implementing services among American cities *Government Information Quarterly* 18 293–307
- Kickert, W. (1997). Public Management in the United States and Europe. Included in *Public Management and Administrative reform in Western Europe* Kickert, W. (Eds.) Edward Elgar UK.
- Kinder, T (2002). Vote early, vote often? Teledemocracy in European cities *Public Administration* Vol. 80 No. 3, 2002 (557–582)
- Kraemer, Kenneth, and Jason Dedrick. (1997): Computing and Public Organizations. *Journal of Public Administration Research and Theory* 7: 89–112.
- Layne, Karen, and Jungwoo Lee. 2001. Developing Fully Functional E-Government: A Four Stage Model. *Government Information Quarterly* 18(2): 12-136.
- Margolis, Michael, and David Resnick. 2000. *Politics as Usual: The Cyberspace “Revolution.”* Thousand Oaks, CA: Sage Publications.
- Melistki, J. (2002): *The adoption and implementation of e-government: the case of e-government in New Jersey* Dissertation Submitted to the Graduate School-Newark Rutgers, The State University of New Jersey
- Moon, M. J. (2002) The evolution of E-government among municipalities: Rhetoric or reality? *Public Administration Review*; vol. 62, 4
- Moussalli, A. (2004). European Perspective And Present Status eGovIndia. [http://www.cibersociedad.net/congres2004/index\\_es.html](http://www.cibersociedad.net/congres2004/index_es.html) (accessed 15th, 11, 2004)
- Mytinger, Robert E. 1968. *Innovation in Local Health Services: A Study of the Adoption of New Programs hy Local Health Departme nts with Particular Referente to New Health Practices*. Washington, DC: U.S. Department of Health Education and Welfare, Public Health Services, Division of Medical Care Administration.
- Nolan, Richard. 1979. Managing the Crises in Data Processing. *Harvard Business Review* 57(March/April): 115-26.
- Norris, D.F ., Fletcher, P .D., and Holden, S.H. (2001). Is your local government plugged in? Highlights of the 2000 electronic government survey. Prepared for the International City/County Management Association (ICMA) and Public Technology, Inc. (PTI) (Available: htt :// ti.nw.dc.us/links/e-government.html .
- Norris, D. F., & Demeter, L. A. (1999). Information technology and city government. *The Municipal Yearbook*, 66, 10-19
- Norris, P (2004). Deepening Democracy via E-Governance Draft chapter for the UN World Public Sector Report Harvard University pages 1-37
- OECD (2001): *Local Partnerships for Better Governance* Paris
- (2003): *The e-government imperative: main findings*. Paris.
- Oakley K. (2002). What is e-governance? *e-Governance Workshop*10-11 June, 2002 Strasbourg
- Papacharissi Z. 2002. The virtual sphere: the internet as a public sphere. *New Media and Society* 4(1): 9-27.
- Peters, G. (1997). A North American Perspective on Administrative Modernization in Europe. Included in *Public Management and Administrative reform in Western Europe* Kickert, W. (Eds.) Edward Elgar UK.

- Pollitt, C. and Bouckaert, G. (2000). *Public Management Reform: A Comparative Analysis*. Oxford: Oxford University Press.
- Pratchett, L. (1999). New technologies and the modernization of local government: an analysis of biases and constraints *Public Administration* Vol. 77, No. 4 1999 (731–750)
- Quinn, Robert, and Kim Cameron. 1983. Organizational Life Cycles and Shifting Criteria of Effectiveness: Some Preliminary Evidence. *Management Science* 29(1): 33-51.
- Relyea, H.C. (2002): E-gov: Introduction and overview *Government Information Quarterly* 19 9–35
- Rouban, L. (1997). The Administrative Modernisation Policy in France. Included in *Public Management and Administrative reform in Western Europe* Kickert, W. Eds.) Edward Elgar UK.
- Santos, R. and Heeks, R. (2003): *ICTs and Intra-Governmental Structures at Local, Regional and Central Levels: Updating Conventional Ideas*. IDPM, University of Manchester, UK
- Smith, A.C., and D.A. Taebel. 1985. Administrative Innovation in Municipal Government. *International Journal of Public Administration* 7(2): 149-77.
- Swedish Association of Local Authorities (SALA) and Swedish Federation of County Councils and Regions (2003): E-democracy in practice 2003. Swedish experiences of a new political tool.
- Tambini D. 1999. New media and democracy. *New Media and Society* 1(3): 305-329.
- Tat-Kei Ho, A. (2002): Reinventing local governments and the E-government initiative *Public Administration Review*; vol 62, 4, 434-444
- Torres, L. and Pina, V. (2001): Public-Private Partnership and Private Finance Initiative in European Union Local Governments and Spain *The European Accounting Review* Vol 10 n°3 pp.601-619
- Torres L. (2004). Trajectories in the modernisation of public administration in European continental countries *Australian Journal of Public Administration* vol 63 n° 3, September, pp.99-112.
- UK Nacional Audit Office. 1999. *Government on the Web*. House of Commons 1999-2000 Session, HC 87. Stationery Office: London.
- UK National Audit Office. 2002. *Government on the Web 11*. House of Commons 2001-2002 Session, HC 764. Stationery Office: London.
- United Nations/American Society for Public Administration (UN/ASPA). 2002. *Benchmarking E-government: A Global Perspective*. UN/ ASPA: New York.
- West, D. M. 2000. *Assessing e-government: The Internet, democracy, and service delivery by state and federal governments*. Providence, RI: Taubman Center for Public Policy, Brown University. (Available: <http://www.insidepolitics.org/govtreport00.html>).
- (2004): E-Government and the Transformation of Service Delivery and Citizen Attitudes *Public Administration Review*, Vol. 64 (1)
- Wigand, R, Picot, A. and Reichwald, R.. 1997. *Information, Organization and Management*. Chichester, UK: John Wiley.
- Wilhelm, Anthony G. 2000. *Democracy in the Digital Age Challenges to Political Life in Cyberspace*. New York: Routledge.
- Wimmer, M (2003): E-government services in the future Report on the JANUS Workshop Progressing the Information Society: the role of government A workshop on the digital economy held in Brussels on 17 February 2003.
- Wong, W. and Welch, E. (2004): Does E-Government Promote Accountability? A Comparative Analysis of Website Openness and Government Accountability *Governance: An International Journal of Policy, Administration, and Institutions*, Vol. 17, No. 2, pp. 275–297.

**TABLE 1. E-SERVICES**

	EsB	EsD	<b>E-Service Score</b>
<b>GENERAL SERVICES</b>			<b>29.9%</b>
1 Public employment (*)	71.43%	62.7%	44.8%
2 Public procurement	71.43%	58.7%	41.9%
3 Change of personal data	37.14%	48.7%	18.1%
4 Identity card /domicile register (*)	40.00%	61.9%	24.8%
5 Traffic fines' applying	22.86%	58.3%	13.3%
6 Traffic fines payment	28.57%	70.0%	20.0%
7 Lost objects	28.57%	76.7%	21.9%
8 Register (birth, marriage, death)	62.86%	39.4%	24.8%
9 Birth, death and marriage certificates (*)	62.86%	66.7%	41.9%
10 Reporting a fault	68.57%	76.4%	52.4%
11 Register of civil partnerships	25.71%	48.1%	12.4%
12 Marriage in Town Halls	60.00%	44.4%	26.7%
13 Changes in the census (*)	57.14%	58.3%	33.3%
14 Voter registration	57.14%	55.0%	31.4%
15 Apply for meetings in public spaces	40.00%	64.3%	25.7%
16 Permission for loading, unloading. Driving in restricted areas	71.43%	65.3%	46.7%
17 Funeral services and cemeteries	64.71%	43.9%	28.4%
<b>EDUCATION</b>			<b>15.7%</b>
18 Municipal schools	42.86%	44.4%	19.0%
19 Kindergardens	25.71%	48.1%	12.4%
<b>ENVIRONMENT-HEALTH</b>			<b>24.6%</b>
20 Consumer's office (*)	50.00%	43.1%	21.6%
21 Food safety (*)	42.86%	51.1%	21.9%
22 Apply for garbage containers, litters	40.00%	61.9%	24.8%
23 Collection of bulky items	57.14%	70.0%	40.0%
24 Applications for recycling bins	54.29%	50.9%	27.6%
25 Domestic collection of garbage	40.00%	52.4%	21.0%
26 Pest control (*)	45.71%	43.8%	20.0%
27 Sanitary licence (*)	42.86%	62.2%	26.7%
28 Selective collection of garbage (trades/works)	48.57%	60.8%	29.5%
29 Complaints about public nuisances (noise. graffiti...) (*)	71.43%	49.3%	35.2%
30 Abandoned vehicles	45.71%	62.5%	28.6%
31 Dangerous trees, protection of trees	28.57%	56.7%	16.2%
32 Waste water, discharge effluent to a sewer	34.29%	50.0%	17.1%
33 Water supply	14.71%	73.3%	10.8%
34 Licence/register of dogs and other animals	48.57%	56.9%	27.6%
<b>HOUSING</b>			<b>23.5%</b>
35 No parking prohibitions	31.43%	45.5%	14.3%
36 Building permission (*)	60.00%	58.7%	35.2%
37 Planning applications (*)	54.29%	57.9%	31.4%
38 Grants (to buy or rehabilitate housing...)	45.71%	58.3%	26.7%
39 Council dwellings	50.00%	52.9%	26.5%
40 Inspection/change of use of premises	34.29%	52.8%	18.1%
41 Demolition	40.00%	57.1%	22.9%
42 Buy a council property	35.29%	63.9%	22.5%
43 Payment of rent, repairs of council properties	26.47%	66.7%	17.6%
44 Private works affecting public roads	28.57%	70.0%	20.0%
<b>SOCIAL SERVICES</b>			<b>16.8%</b>
45 Teleassistance	68.57%	37.5%	25.7%
46 Adaptations for the disabled	31.43%	39.4%	12.4%
47 Grants (*)	37.14%	56.4%	21.0%

48	Home care, meals on wheels, nursery homes	25.71%	40.7%	10.5%
49	Social activities/youth	34.29%	41.7%	14.3%
ECONOMIC ACTIVITIES				<b>30.6%</b>
50	Payment of business rates	40.00%	69.0%	27.6%
51	Payment of taxes (*)	85.71%	73.3%	62.9%
52	Benefits (*)	45.71%	54.2%	24.8%
53	Communication change of fiscal data	22.86%	70.8%	16.2%
54	Parking for residents	40.00%	57.1%	22.9%
55	Parkings	62.86%	43.9%	27.6%
56	Parking for the disabled	57.14%	46.7%	26.7%
57	Public transport fares	61.76%	52.4%	32.4%
58	Venues for meetings, congresses	51.43%	70.4%	36.2%
59	Markets, trade in public ways	68.57%	52.8%	36.2%
60	Use of streets and public sites for commercial activities	51.43%	59.3%	30.5%
61	Licence for taxi & private hire	34.29%	50.0%	17.1%
62	Applications for licences to open or close establishments	62.86%	59.1%	37.1%
CULTURE/LEISURE/SPORT				<b>37.7%</b>
63	Catalogue of libraries (*)	71.43%	86.7%	61.9%
64	Booking of books (*)	51.43%	59.3%	30.5%
65	Booking of sport facilities	77.14%	39.5%	30.5%
66	Public entertainments tickets	68.57%	70.8%	48.6%
67	Filming permit	28.57%	60.0%	17.1%
	<i>MEANS</i>	<b>47.59%</b>		<b>27.08%</b>
	<b>* eEurope common list of 20 basic public services</b>			

TABLE 2. E-DEMOCRACY AND WEB MATURITY

<b>POLITICAL DIMENSION</b>	<b>PD</b>	<b>FINANCIAL ACCOUNTABILITY</b>	<b>FA</b>
<b>Mayor of council</b>		<b>Statistics</b>	60,0%
Biographical information	71,4%	<b>Consolidated Financial Statements</b>	28,6%
Collection of speeches by the Mayor	31,4%	<b>Performance Indicators</b>	22,9%
e-mail	62,9%	<b>Audit Report</b>	17,1%
Telephone	42,9%	<b>General concepts</b>	
Photograph	85,7%	Departures from accounting principles	20,0%
Address	20,0%	Comparative figures for the previous period	22,9%
<b>Government contacts</b>		Changes in Accounting Policies	20,0%
Members	91,4%	Consequences of changes in prior periods	17,1%
e-mail	62,9%	Reasons for changes	2,9%
Telephone	51,4%	<b>Financial Statements</b>	
Photograph	54,3%	Balance sheet under modified accrual basis	0,0%
Address	31,4%	Balance sheet under full accrual, including depreciation	17,1%
<b>Council members contacts</b>		Balance sheet of Financial assets and Liabilities (a)	2,9%
e-mail	41,4%	<b>Operations Statement</b>	
Telephone	45,7%	Account format	2,9%
Photograph	58,6%	List format	0,0%
Address	28,6%	Interperiod Allocations are disclosed	2,9%
<b>Plenary sessions, minutes, reports</b>	74,3%	<b>Other Financial Statements</b>	
<b>Videos</b>	11,4%	Statement of source and application of funds (b)	2,9%
<b>What's new</b>		Statement of Cash Flow (b)	20,0%
Press releases	91,4%	Reconciliation statement Profit-Cash flow	2,9%
Photographs of public acts	37,1%	<b>Budgetary information</b>	
<b>Comissions</b>	91,4%	Statement of the annual budget	45,7%
<b>Structure and functions of the Government</b>	91,4%	Classification of expenditures by function	42,9%
<b>Information for voters, media, political parties, candidates and others</b>	60,0%	The expenditures are grouped by object class	51,4%
		The revenues are grouped by sources	42,9%
<b>CITIZEN DIALOGUE</b>	<b>CD</b>	Statement of budgetary execution	34,3%
<b>Suggestion/complaint boxes about public services</b>	65,7%	Budgetary cash-flow statement	5,7%
<b>Forum</b>	25,7%	Debt statement	31,4%
<b>Democratic engagement and participation</b>	37,1%		
<b>Accesibility</b>			
Languages	20,0%	<b>WEB MATURITY</b>	<b>WM</b>
Disabled people	37,1%	Identification of errors	65,7%
<b>Projects and estrategies</b>	45,7%	Site search engine	85,7%
<b>Publications</b>	65,7%	Website map	60,0%
<b>Links to the official government Web sites</b>	64,3%	Simplicity in the completion of formalities online	61,4%
<b>e-Promotion of the city</b>		Street map	47,1%
Business	57,1%	Comprehension of indications for reaching public departments	34,3%
Tourist information	91,4%		
Agenda of the city	90,0%		
e-initiatives vs. digital debate	40,0%		
e-mail address available for citizens	17,1%		

**TABLE 3. FINAL RANKING & VALUE OF THE MAGNITUDES OF THE RESEARCH**

	CITY	EsB	EsD	E-Service	E-Democracy	PD	CD	FA	WM	Total	GROUP
1	BIRMINGHAM	58,2%	69,2%	40,3%	60,0%	63,6%	69,2%	52,0%	75,0%	52,6%	1
2	BARCELONA	62,7%	57,1%	35,8%	62,5%	54,5%	88,5%	56,0%	83,3%	52,6%	
3	AMSTERDAM	65,7%	42,8%	28,1%	64,2%	86,4%	88,5%	32,0%	83,3%	49,9%	
4	LONDON	47,8%	69,8%	33,3%	62,5%	59,1%	65,4%	64,0%	58,3%	49,0%	
5	GLASGOW	65,7%	45,5%	29,9%	73,3%	86,4%	69,2%	64,0%	25,0%	48,9%	
6	EDINBURGH	52,2%	54,3%	28,4%	66,7%	81,8%	46,2%	64,0%	58,3%	48,6%	
7	VIENNA	61,2%	79,7%	48,8%	44,2%	81,8%	65,4%	0,0%	50,0%	46,8%	
8	DUBLIN	49,3%	65,7%	32,3%	64,2%	81,8%	50,0%	56,0%	33,3%	46,8%	
9	SHEFFIELD	59,7%	60,0%	35,8%	56,7%	59,1%	46,2%	60,0%	50,0%	46,6%	
	<b>MEAN</b>	<b>58,1%</b>	<b>60,5%</b>	<b>34,7%</b>	<b>61,6%</b>	<b>72,7%</b>	<b>65,4%</b>	<b>49,8%</b>	<b>57,4%</b>	<b>49,1%</b>	
10	LEEDS	46,3%	55,9%	25,9%	60,8%	50,0%	73,1%	64,0%	50,0%	44,0%	2
11	STUTTGART	62,7%	65,9%	41,3%	37,5%	72,7%	42,3%	4,0%	58,3%	41,3%	
12	MADRID	43,9%	63,2%	27,8%	41,7%	27,3%	61,5%	44,0%	83,3%	39,6%	
13	BERLIN	49,3%	56,6%	27,9%	45,0%	68,2%	76,9%	8,0%	66,7%	39,5%	
14	MUNICH	53,7%	70,4%	37,8%	39,2%	68,2%	57,7%	4,0%	41,7%	38,8%	
15	ESSEN	67,2%	54,1%	36,3%	42,5%	81,8%	50,0%	4,0%	33,3%	38,8%	
16	COLOGNE	61,2%	50,4%	30,8%	35,8%	59,1%	57,7%	4,0%	83,3%	38,3%	
	<b>MEAN</b>	<b>54,9%</b>	<b>59,5%</b>	<b>32,5%</b>	<b>43,2%</b>	<b>61,0%</b>	<b>59,9%</b>	<b>18,9%</b>	<b>59,5%</b>	<b>40,0%</b>	
17	CARDIFF	52,2%	61,9%	32,3%	36,7%	63,6%	53,8%	4,0%	58,3%	36,9%	3
18	ZARAGOZA	61,2%	60,2%	36,8%	26,7%	45,5%	46,2%	0,0%	83,3%	36,9%	
19	LUXEMBOURG	55,2%	47,7%	26,4%	41,7%	63,6%	30,8%	28,0%	58,3%	36,4%	
20	FRANKFURT	31,3%	68,3%	21,4%	38,3%	70,5%	50,0%	4,0%	91,7%	36,0%	
21	HAMBURG	37,3%	68,0%	25,4%	27,5%	34,1%	53,8%	8,0%	83,3%	32,1%	
22	GENOA	52,2%	61,0%	31,8%	28,3%	45,5%	46,2%	4,0%	50,0%	32,1%	
23	VALENCIA	56,7%	53,5%	30,3%	24,2%	18,2%	50,0%	16,0%	66,7%	31,2%	
24	PARIS	29,9%	40,0%	11,9%	33,3%	43,2%	34,6%	24,0%	83,3%	28,7%	
25	BRUSSELS	47,8%	47,9%	22,9%	25,8%	50,0%	34,6%	0,0%	66,7%	28,6%	
	<b>MEAN</b>	<b>47,1%</b>	<b>56,5%</b>	<b>26,6%</b>	<b>31,4%</b>	<b>48,2%</b>	<b>44,4%</b>	<b>9,8%</b>	<b>71,3%</b>	<b>33,2%</b>	
26	MILAN	19,4%	64,1%	12,4%	40,0%	72,7%	53,8%	4,0%	33,3%	26,9%	4
27	PALERMO	23,9%	50,0%	11,9%	36,7%	65,9%	34,6%	12,0%	50,0%	26,9%	
28	SEVILLA	41,8%	61,9%	25,9%	21,7%	36,4%	38,5%	0,0%	50,0%	26,4%	
29	NAPLES	34,3%	39,1%	13,4%	28,3%	36,4%	38,5%	16,0%	66,7%	25,5%	
30	LISBON	30,8%	53,3%	16,4%	31,7%	50,0%	30,8%	16,0%	33,3%	25,0%	
31	MARSEILLE	29,9%	48,3%	14,4%	23,3%	40,9%	38,5%	0,0%	75,0%	24,5%	
32	ATHENS	52,2%	36,2%	18,9%	18,3%	36,4%	23,1%	0,0%	66,7%	23,4%	
33	ROME	44,8%	45,6%	20,4%	23,3%	36,4%	38,5%	4,0%	33,3%	23,0%	
34	LYON	25,4%	66,7%	16,9%	18,3%	40,9%	15,4%	0,0%	58,3%	21,7%	
35	BELFAST	32,8%	51,5%	16,9%	25,8%	36,4%	50,0%	4,0%	25,0%	21,7%	
	<b>MEAN</b>	<b>33,5%</b>	<b>51,7%</b>	<b>16,8%</b>	<b>26,7%</b>	<b>45,2%</b>	<b>36,2%</b>	<b>5,6%</b>	<b>49,2%</b>	<b>24,5%</b>	
	<b>MEANS</b>	<b>47,6%</b>	<b>56,7%</b>	<b>27,1%</b>	<b>40,2%</b>	<b>12,4</b>	<b>6,6</b>	<b>5,2</b>	<b>59,0%</b>	<b>36,2%</b>	

EXHIBIT 1  
CITY E-GOVERNANCE



