

# Evaluation of an E-Democracy Platform for European Cities

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**Abstract.** In this paper the experiences from evaluating an e-democracy platform in two European cities are presented. The e-democracy platform under evaluation consisted of three main applications, mainly tele-voting for realising opinion poll petitions, tele-consultation and e-Forums. In this paper, the trials performed in Barcelona and Brent borough of London are outlined. The specification, development and trials evaluation of the e-democracy platform were carried out within the IST EURO-CITI project. The main purpose of the evaluation within the project was to prove the robustness of the technological platform. However, the evaluation also provided some interesting results with regards to the use of Internet in order to increase citizens' participation. Although the purpose of the evaluation was not to study the current state and potential of e-democracy, the lessons learnt could nevertheless be useful to researchers and practitioners in the field.

## 1 Introduction

Electronic government and e-democracy are becoming increasingly important in Europe [1][2]. The benefits of both e-government and e-democracy are now well understood by local authorities worldwide that launch relevant initiatives [3][4]. In particular, the potential of e-democracy to increase citizens' participation [5] is one of the main reasons behind its wide spread.

The aim of this paper is to present the results from evaluating an e-democracy platform in two European cities, namely Barcelona and Brent Borough of London. This evaluation was carried out within EURO-CITI [6][7], a research project partially funded by the European Commission under the IST programme [8].

This paper is organized as follows. In section 2, a general overview of the EURO-CITI e-democracy platform and its services is given. In section 3, some details of the evaluation are outlined while in sections 4 and 5 the trials at Barcelona and Brent are presented. Finally, in section 6 the conclusions and future work are given.

## 2 The EURO-CITI Platform

The EURO-CITI platform is constituted by two sets of applications. These are:

1. **Applications for the Citizen.** These include:
  - Tele-voting application
  - E-forums application
  - Tele-consulting application
2. **Applications for the Operator at the Local Authority.** These include:
  - Tele-voting Management application
  - E-forums Management application
  - Tele-consulting Management application
  - Configuration and User Administration

In this paper the focus is on applications for the citizens thus the applications for operators are no longer discussed.

The EURO-CITI Tele-Voting service was used for opinion poll petitions. In that context, three tele-voting scenarios have been identified by the participating local authorities as particularly important:

- **“Local Voting”.** In this case, a voting issue is posted in one EURO-CITI server and eligible voters are citizens who are registered in that server.
- **“Local Voting with European Scope”.** In this case, a voting issue is posted in one EURO-CITI server (termed *initiator*). Here, eligible voters consist of citizens who are registered in the initiator as well as citizens from other cities. These cities however must have been invited by the initiator and accepted that invitation.
- **“Network Voting”.** In this case, a voting issue is proposed by one EURO-CITI server (termed *initiator*) and is posted in all servers (i.e. cities) that have accepted to participate in that voting. Here, eligible voters for each server are the citizens who are registered in that server.

In Tele-Consultation both “Local consultation” and “Local consultation with European Scope” scenarios are supported, where these scenarios have the same scope as in Tele-Voting. However, in e-Forums only “Local” scenarios are supported.

## 3 The Evaluation Method

The evaluation of the applications was performed by two groups of users. The first group was comprised by citizens from the three participating municipalities (Athens, Barcelona and Brent) and the second one by operators who are employees at the local municipalities (mainly IT staff). The three trials sites were replicates and each citizen or operator used and evaluated his local installation.

For collecting and assessing the feedback of the operators, the GQM methodology was used. An on line tool was also used, which provided the environment for using GQM in collaborative and user-friendly manner. For the case of citizens an on-line

questionnaire was used, which was available to the Internet through the EURO-CITI tele-consulting application.

Due to space limitation, in this paper only the results for the case of citizens from Barcelona and Brent are presented.

The evaluation period was almost three months from the beginning of July to the end of August 2002.

## 4 Trials in Barcelona

The first stage of the trials at Barcelona was the selection of citizens. Barcelona decided to select “Poble Sec”, a historical neighbourhood of Barcelona, for performing the trials.

In order to disseminate the trials, the Barcelona City Council designed and distributed leaflets and posters. 10,000 leaflets were sent to citizens (almost all the families of the neighbourhood) and 1,000 posters were hung in almost all the shops of the neighbourhood. The aim of this task was twofold: on one hand, user involvement in the trials (the leaflets and the posters informed of the process and explained how to participate in the trials). On the other hand, e-democracy awareness was generated in the neighbourhood. The process was enhanced by media coverage: a press conference was organised and some newspapers talked about the EURI-CITI trials.

Interested citizens were requested to fill a web questionnaire or to call the Department of Citizen Participation to register. One lesson that the Barcelona City Council learnt is the high effort needed to achieve citizen participation. Among the group of around 30,000 people that was exposed to the direct publicity of the trials (leaflets and posters), only around 200 expressed their initial interest and registered to join the trials (less than 1%). A login and password were generated for each one of them, and the materials (smart card readers, smart cards) were assigned in a first-come first-served basis.

Three public PCs were enabled to allow citizens without computer at home to participate in the trials. One of them was installed in a Public Library, another in a Cultural Centre and the last one in the Coordination Office of Citizen Associations.

Two consultation and two voting issues were launched every week (one on Tuesday and one on Thursday) and they were open for one week. Some consultations were opened to guest users.

It was decided that the issues to be launched would belong to three different categories: specific issues of the services of the neighbourhood, evaluation of the strategic plan and suggestions of the participants. The intention was to have an adaptive approach and react to the people’s feedback in the new participation issues.

A portal was created to integrate the EURO-CITI services into the website of the Barcelona City Council. The user guides for the smart card readers were translated into Catalan and were included in the website, as well as some other relevant information.

The citizens that had registered were invited to an event on June 25 2002 where a presentation of the applications was given and the materials were delivered to them. About half of the registered citizens attended (95). 24 were given a smart card reader plus a smart card with digital certificate; 23 were given a smart card reader plus a smart card with user and password stored (Drag & Drop Smart Card); 20 were given a

smart card (with digital certificate) to vote in public PCs; the rest were given a user name and a password.

The trials consisted on 17 voting issues, 17 consultation issues and 1 forum. The consultations contained an average of 6 questions each.

All 17 consultations were answered. The participation rate has been increasing steadily since the first consultation, which was about accessibility and mobility in the neighbourhood (9 participants), until 23 July 2002, when a consultation about General Aspects of the Local Services Survey was launched. It was the consultation with the highest participation rate (34 participants). From this date on, the participation decreased regularly – probably because of the holidays. The evaluation consultation (26 July 2002) was answered by 24 people.

The experience of the trials has been extremely positive, as it has provided the Barcelona City Council with very useful knowledge of the potential problems.

The main lessons that the Barcelona City Council has learnt with the trials can be grouped in three categories: lessons regarding to the participation rate, lessons regarding to the usability of the applications and lessons regarding to the stability of the applications

### **Lessons Regarding the Participation Rate**

The main message that the Municipality of Barcelona has received is that it is very difficult to achieve a high participation rate. It is very difficult to involve citizens: in the case of the Barcelona trials, where a considerable effort was invested to disseminate the trials, only 34 out of the 30,000 citizens that were exposed to the dissemination activities were participating actively.

One of the reasons may be that there is not still a “participation culture” among the population. In addition, there is not still a real “Internet culture” either, at least in all the age ranges. Thus, much work has to be done to make citizen participation, Internet, and citizen participation through Internet belongs to the everyday life of citizens.

Another message is the need of a very stable platform. If the platform is not very stable, the few users that would use it are likely to loose their motivation and don't use the applications again. Similarly, the application must be very easy to use, because the citizens are not supposed to be IT skilled and, if they are not able to use them without effort, they give up using the applications.

Finally, valuable information has been gained concerning the temporalisation. One obvious reason for the low participation period has been the fact that the experience has been held in the summer, in the usual vacation term. It's clear that in other months the results would be better, so it is important to keep it in mind for future trials. On the other hand, the duration of the consultations (1 week) has revealed to be too short, while the frequency of them (twice a week) has revealed too high.

### **Lessons Regarding the Ease of Use**

If a high participation rate is wanted, it is obvious that some additional effort should be done in order to make it the easiest for the citizens. e-Government applications should be specially usable, as the people that use them are not supposed to be IT skilled, and no education should be required. The message can be summed up as “the easier it is, the more citizens will participate”.

Some technologies don't seem to be mature enough for their use with common citizens. For example, Smart card reader installation and SC operation are not still easy enough to allow inexperienced citizens to use them. In addition, using smart cards in kiosks is not practical at all, because a prior registration of each certificate in the kiosk is needed.

## 5 Trials in London Borough of Brent

The Consultation department carefully selected 100 citizens from a pool of volunteers.

Unfortunately, trials coincided with the summer period and only 50% were available and willing to participate by the time trials started. Finally, 44 citizens were set up in the system.

Citizens were notified of two-different kick-off meetings where a pack containing instructions, expectations, smart card, smart-card reader, PIN number, username / password and contact details was issued.

There were fears amongst the attendees that the technology was going to be too difficult to understand. Re-assurance was given that everything was explained step-by-step in the manual and a smart-card reader was installed during the meeting for illustration purposes.

Although a hotline was meant to be set up, the low number of participants indicated that there was not a need for this. Instead, direct line phone numbers of IT operators and emails were given as well as a feedback form. Emails were the preferred means of contact by citizens.

The feedback forms were not returned in most of the cases. Feedback was mostly collected through emails and comments that were extracted from telephone conversations. It took a lot of persuasion to finally make citizens to fill up the official online feedback form as it was considered long and it did not always allow the citizen to express particular points that they had in their minds.

All in all, all the different parts involved in Brent EURO-CITI trials learnt valuable lessons, being the main ones:

- The IT unit gained technical expertise in Digital Certificates, Java Web Servers and XML. A valuable lesson was that non-technical users may find non-standard applications frightening and difficult to use. Therefore, higher attention to design of user interfaces should be paid.
- The Consultation department learnt that new technical methods of collecting information such as tele-consulting are easy to use, being quicker and cheaper to set up than traditional surveys. However, tele-consulting was seen as an extra channel for capturing information and not as a replacement of traditional mechanisms.

Councilors learnt that the public is ready to communicate with them in different ways if they are given convenient tools to do so, tools that meet citizens' needs and meet the expectations of democratic representatives.

## 6 Conclusions and Future Work

The EURO-CITI platform equips local authorities with an integrated eDemocracy platform that includes three important tele-democracy services: tele-voting for realizing opinion poll petitions, tele-consultations and eForums.

The evaluation phase of EURO-CITI besides proving the technological competence of the platform provided some interesting results of general use.

e-democracy platforms are in their first only steps. Both public servants and citizens have to familiarise themselves with using Internet as a tool for active participation.

The platforms have to be technologically very stable and robust. The main emphasis should be put into the usability of the platform. Citizens want the best possible quality and will not compromise with anything less than that.

Trials have to be carefully planned and executed. Issues that have to do with the time and duration of trials may have an impact on the citizens' participation.

Overall, e-democracy is a challenging field with a potential to increase citizens participation in democratic processes. However, technology itself is not a panacea that will automatically increase participation rates. Therefore, a lot of way has to be traveled before this potential is fully realized.

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