# E-Services as a Part of Implementation of the Strategies for Computerization of the Country (Case Study of Zabierzów Commune)

## Julia Gorzelany-Plesińska

University of Agriculture in Krakow, Poland

#### Abstract

The information and communication society is becoming increasingly important due to the growing demands of civilization, which are entailed by the process of globalization. Currently, we are witnessing the development of e-services in public administration in Poland, in response to the strategy of informatization. Thus, the objective of this paper is to indicate the way an information and communication society can develop by the introduction of electronic public services. Based on research conducted in the Zabierzów Commune, an attempt is made to establish the level of the introduction of e-services at a local level.

#### Introduction

The Internet has become a force that drives the modern economy. It creates tremendous opportunities and growth prospects at global, regional and local levels. This is the reason why we are currently starting to witness how individuals, businesses and countries use information technologies for education and investment purposes. The today's ICT systems not only help to reduce costs but they are also used as innovation tools. They can increase profits by the introduction of new services and ways of work. The implementation of e-services is an example of such a novelty and change in work practices. We are currently observing dynamic development in public administration. Thus, the objective of this paper is to indicate how the information and communication society can develop by the introduction of electronic public services. On the one hand, the emphasis will be on e-services provided to citizens and businesses; on the other hand we will seek to answer the question of whether communes create specialized portals. The Informatization Strategy assumes the creation of e-government, which will develop e-offices functioning 24 hours a day.

This paper will attempt to answer to what extent Polish communes have introduced e-services. The study was performed in the Zabierzów Commune. The research was conducted with the help of interviews, a survey and analysis of available specialist literature.

## 1 E-government as part of the Informatization Strategy

In March 2000, the EU countries decided to implement the eEurope Broadband Strategy which aims at the development of an information society by investing in new information and communication technologies, supporting the economy and science, creating public information systems and educating the public. Poland has developed a local informatization programme called "Strategia Informatyzacji RP—ePolska" (Informatization Strategy—ePoland) which is currently being implemented. Moving towards an information society is a revolutionary and qualitative change with new social systems but also presents conflicts and turbulence. It also involves discussions between supporters and opponents of the new formation (Muszyński 2006, 136). Yet it is worth mentioning here that the specific tasks related to the development of the information society depend on local

self-governments. It is the local territorial units that know best what residents need. These units are also points of contact with the state for the average citizen and they stimulate the development of the information society.

Considering the above, the prerequisite for creating the information society is the development of e-offices at the local level. Based on the analysis of public administration as it operates today, it can be said that it uses instruments already known from ancient times. Most public offices still use paper documents. The majority of them are not prepared to accept electronic documents from citizens. It is more and more often the case that customers as well as public offices appreciate the role of on-line communication. The concept of e-government assumes comprehensive handling of incoming documents in an electronic way. A single e-office consists of electronic forms, a verification module for electronic signatures, an electronic mailbox, an electronic module for certifying official documents, an electronic workflow system, and an interactive website. The creation of e-offices was possible thanks to changes in the Polish law with regards to access to public information which took place towards the end of the 1990s. The new system of e-government introduced four access channels to public information (Kowalczyk 2009, 151–161):

- announcement of public information, including official documents on an electronic portal called Biuletyn Informacji Publicznej (BIP)
- making documents available on request
- open access to public information by posting it in generally accessible places or installing devices allowing access to that information
- open admission to meetings of local government units and open access to meeting proceedings. This paper will focus on BIP. It is an ICT tool for publishing official documents which has the form of a unified system of web pages. The most important element of BIP is the main page, which contains a list of public institutions which are obliged to provide information together with links leading to their websites.<sup>1</sup>

The mission of public services should be to provide high-quality services for citizens and businesses. This can be achieved by providing electronic administrative services to a broad range of users. The provision of broad-range electronic services in public administration involves the following tasks (Kamiński and Kulisiewicz 2008):

- $\bullet$  implementation of the set of 20 interactive public e-services for citizens and businesses, as defined by the EU
- introduction of electronic documents and services provided by the Internet (if allowed by the type of case)
- development of tools enabling electronic access to public services with the help of e-signatures;
- creation of a common dictionary of terms and standardization of methods for exchanging information and electronic document templates
- creation of an administration portal for citizens and businesses that makes it possible to personalize content and services as well as procedural support; also the introduction of a single point electronic communication scheme
- creation of platforms for electronic services to provide support for citizens in key areas of their activity, especially the simplification of VAT payments for businesses on the basis of e-invoices With the help of the above-mentioned tasks it should be possible to increase convenience for citizens, provide equal opportunities, remove barriers in access to public life, enhance creativity and entrepreneurship by stimulating the use of information, expand the labour market, utilize fully the possibilities provided by modern technologies to improve the functioning of public administration and self-governments, and increase the transparency of the state. The prerequisite for building the information society should be to create more and more services for e-government.

## 2 E-documents and e-services in communes

Customer focus is a term which is increasingly emphasised both by management theorists and managers. In the case of communes, the customer (citizen) is also important, as the basic objective of

<sup>1.</sup> See: http://www.bip.gov.pl/.

the commune is to satisfy the needs of its citizens. E-government services should be tailored to the needs of customers and such an orientation is possible thanks to the co-existence of personal contact and access to new technologies. The creation of e-government should consequently lead to time and money savings, increased functionality of provided services, increased amount of information, increased transparency of administrative procedures, elimination of mistakes, improved access (24/7 availability of the public office), integration of Internet resources, focus on the matter to be settled and not with whom, provide a citizen focus and business focus. This is connected with organizational changes and new skills of public administration to improve the quality of services (E-Government, 2008). E-services for citizens in public administration have been illustrated in figure 1.

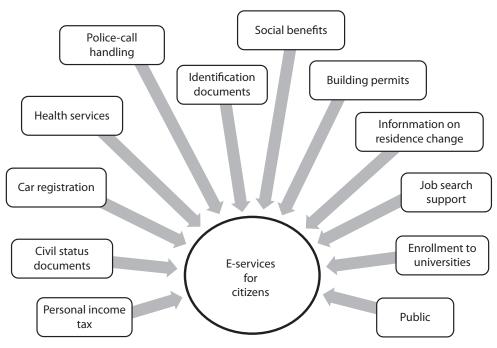


Fig. 1. E-services for citizens

Based on figure 1, it can be stated that citizens can settle the following issues with the help of new technologies: enrol in a university, submit a tax statement, find a book, obtain insurance, apply for identification documents, find a job, register a car, obtain a building permit, make a police call, submit an application for a birth certificate, or change a residential address.

The other group consists of e-services for businesses. They include the following areas: national insurance institution matters (ZUS), VAT, registration of business activity, statistical data, customs declarations, permits and certificates, and public tenders.

The above-mentioned e-services represent some kind of guidance, but in Poland the list of services that can be provided online has been slightly modified. In accordance with the project "Wrota Polski" in the future e-services will include: submission of tax statements, job offer search and help in a job search, obtaining the right to unemployment benefits, retirement pensions, disability pensions or other benefits, scholarships, obtaining an identity document, driving licence, passport, car registration, building permit, police report of for example a theft, access to library catalogues, submission of application documents to universities, change of registration address, or making a doctor's appointment (E-Government, 2008).

The previously mentioned services can be provided only with the help of e-documents. The system of e-document support in state institutions should primarily ensure content integrity by protecting against the introduction of changes, making it possible to remove documents from the system, enable permanent and effective access to documents, identify users, and document changes performed by the users. The main objectives of e-document implementation are the

<sup>2.</sup> It is a central ICT systems which is supposed to support e-services for citizens and businesses; the project has been developed by the State Committe for Scientific Research.

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following: to accelerate the workflow, reduce the costs of operation, transfer, processing and storing of information, reduce the costs of office operation, enable automatization—to search for information included in e-documents. It is important to ensure that citizens have access to matters and documents submitted in public administration units. E-government should be created with the use of standards and uniform principles enabling fluent document workflow. It is necessary to create a coherent and unified architecture of public administration systems (service-oriented architecture), develop and implement e-government systems based on infrastructure enabling the exchange of data between e-services platforms, electronic registers and offices. Civil servants should also be required to have good computer skills.

Due to the complexity of tasks performed by communes, it is difficult to manage such organizational units. A commune management system includes management objects (positions and management units), whose basic objective is to make such an impact on the executive subsystem so that it performs assigned tasks in the most effective and efficient way. Commune management can be understood institutionally (positions in the hierarchy, entrusted with authority to execute tasks) and functionally (as a set of tasks that need to be completed in order to drive the system). Therefore, the program "Wrota Polski" involves both commune offices and organizational units, as well as district authorities, statistical offices, provincial government offices, provincial self-government units, and customs offices.

# 3 E-services in the Zabierzów Commune — empirical analysis

The Zabierzów Commune is situated in the Małopolskie Voivodship, in close proximity to the city of Krakow. The area of 99,6 km² is inhabited by 23 706 people (data as of 30 June 2012).³ The commune has an updated spatial management plan and a very good road, water supply, sewage, gas and electricity infrastructure. Zabierzów has been developing very dynamically, which results in a growing number of inhabitants, businesses and investors. The commune has been selected for the purposes of this study to answer the question of to what extent it has introduced e-services.

The studies were comprised of several stages: in the first phase characteristics of the area of research was made, next the selection of research methods was effected, conducting research was a further step. Making analysis of findings was a final stage as well as conclusions and recommendations were formulated.

Making analysis of the degree of implementing e-services in the chosen commune constituted the area of research with an element of the implementation of Strategies of the Computerization, on the assumption that it is contributing to the development of the region. Earlier studies (Gorzelany-Plesińska 2012) showed that largely the communes of the Małopolska voivodeship have not implemented e-services. For the purpose of the article the following research methods were used: studying of Polish and foreign literature, a questionnaire with the 5 stages Likert's scale and interviews with the commune authorities.

Before drawing up the questionnaire, a list of e-services which can be used in forming an e-office was created. Next, numerical values were assisgned to statements in the questionnaire. The study was conducted in the Zabierzów Commune—the selection of the commune was intentional. The commune was chosen since it is one of few communes in which e-services are being implemented. The other research stage constituted interviews with residents during which they responded to questions which concerned the use of e-services. Based on this study, conclusions were formulated and recommendations made.

The results have been presented in table 1 (a rank of 1 means that the given e-services do not exist at all and no action is taken to implement them, 2—the e-services do not exist, but there are plans for implementation, 3—e-services have commenced, 4—e-services are already highly functioning but might need some changes, 5—e-services are functioning and do not require changes).

<sup>3. [</sup>In the journal (in both Polish and English texts) European practice of number notation is followed—for example,  $36\ 333,33$  (European style) =  $36\ 333.33$  (Canadian style) =  $36\ 333.33$  (US and British style). Furthermore in the International System of Units (SI units), fixed spaces rather than commas are used to mark off groups of three digits, both to the left and to the right of the decimal point.—Ed.]

Tab. 1. The information society in the Zabierzów Commune (study results)

E-services	Rank				
What can be done via the Internet	1	2	3	4	5
For inhabitants:					
Civil register acts					X
Car registration			х		
Police calls					X
Identification documents					Х
Social benefits					Х
Building permit					X
Information on change of residence					X
Support in job search					X
Use of public libraries			X		
For businesses:				Į.	
Social Insurance Institution (ZUS)					X
Income tax					X
VAT					X
Registration of business activity					X
Statistical data					X
Customs declarations					X
Permits and certificates					X
Public tenders					X
Does the commune use e-documents?					X
Has the commune developed e-tourism?				х	
Has the commune created specialist portals?			X		
Has the commune implemented e-government?				Х	

Based on the data from table 1, it can be stated that e-services in Zabierzów are implemented at a very high level. The Internet page of the commune is very well-developed. By clicking the link "Załatw sprawę" (settle an administrative matter), we are led to a subsection containing e-documents from the following organization units: Department of Finance and Budgeting, Civil Register Office, Office for Civil Affairs, the position responsible for military and civil defence, local schools, Department of Spatial Planning, Geodesy and Land Management, Department of Infrastructure and Environment Protection, Office for Development and Promotion, position responsible for the promotion of health and solving alcohol related problems, and the Community Centre for Social Help—Section for Social Help and Family Benefits. The subsequent link include detailed information on what to do step by step.

It is also worth noting that the commune uses the e-PUAP system and BIP. The e-services which are unique for Zabierzów are additional services, such as an e-card or e-walk. E-walk is nothing but a virtual walk which is supposed to attract tourists. During that walk it is possible to learn about Zabierzów attractions and everything that is worth seeing. E-tourism has been ranked at level 4, which means that it has not developed fully. Detailed information was obtained from an interview with commune inhabitants and public office employees. The missing element in e-tourism is the lack of any e-offer, which would include information about the accommodation base and booking possibilities. It is also worth noting that some of the communes provide e-tourism services and they give added value. Firstly, it is possible to find information about accommodation or restaurants, on the other tourism-related businesses can advertise their offer. Special attention should be also drawn to the tourist information system called Infomat System created as part of the project "Jurajski Park w Gminie Zabierzów — produkt i oferta turystyczna" (Jura part in the Zabierzów Commune—the product and tourist offer). The rank 4 has been also given for

e-government implementation. As the study shows, the public office in Zabierzów is transforming towards e-government at least by e-services but we cannot say that this is a 24/7 office; therefore, it would be recommended to implement some more strategic steps in that respect.

In analysis of the opinion of residents one should state that the evaluation of e-services is high. Almost 80% of residents said that they were satisfied with the e-services and also claimed, that thanks to it they did not have to devote so much time to settle matters. The study revealed a disproportion between younger and older people. Respondents above 65 years old declared that they are not making use of e-services. They said that this is because they do not know how to use a computer and are not willing to put the time in to learn its operations. Since the analyzed commune has the full scope of e-services, they have been collected and illustrated together with the benefits they bring in figure 2.

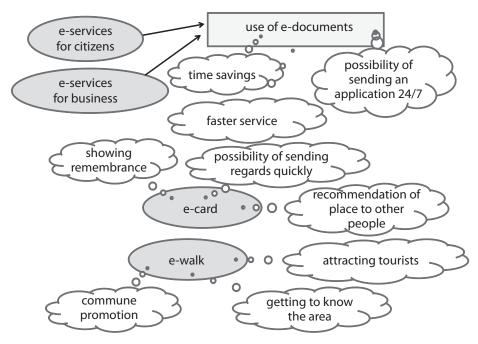


Fig. 2. E-services and their benefits for the Zabierzów Commune

Having analyzed figure 2, it can be noted that the use of e-services brings a number of benefits. What should be recognized is the wide scope of e-services both for citizens and businesses. E-walk is a particularly interesting example here, as it gives an opportunity to get to know the area and visit interesting sites within the commune.

Summing up this part of the study, it needs to be concluded that the commune has developed strong e-services, which makes it easier both for citizens and businesses to communicate with the public administration office. The use of modern IT tools facilitates this in a significant way. The availability of e-services means time savings both for citizens and businesses. It also needs to be highlighted here the fact that e-services also means efforts on the side of administration as well as the need to develop civil servants' competences. Generally it can be concluded that Zabierzów has handled this challenge very skilfully.

### Summary

The concept of an e-office is understood as a set of actions and measures related to electronic communication between a public administration office and a citizen. When we look at this issue more closely, it turns out that it entails both a wide scope of activities and covers a wide range of organizational, legal and IT-related issues. When information previously processed only inside the office is released outside, it becomes necessary to reorganize work and also introduce a coherent IT system, which will cope with such a challenge. The system needs to be adjusted to meet

basic areas of public office activity: budgetary accounting, registration systems, tax services and local fees. Another step determining the creation of e-services is the need to introduce and use e-documents. The document management system is responsible for integration with external public services platforms, such as ePUAP or Wrota Małopolski. Only with such a prepared back office, is it possible to start implementing what can be seen outside, the so-called front office.

From 1 May 2008, each public administration office has needed to give citizens the possibility of settling some matters via the Internet. Basically, e-offices already operate in larger cities, however in communes it is looking a little bit worse. The research conducted showed that e-services in the Zabierzów Commune are being implemented on the highest level. In a further interpretation one should state that the analyzed commune should be a model for communes in which e-services do not exist. Communes not using e-services should study the Zabierzów Commune and how they are achieving the Strategy of the Computerization of Poland.

The most significant problems encountered by local authorities in the process of creating e-governments include the following: financial difficulties, lack of common requirements for the exchange of information between offices, regulations which require the use of written forms to settle a particular issue and make it impossible to use an e-document. It also needs to be emphasised here that the process of informatization is a long-lasting undertaking but it brings a lot of benefits. First of all, the use of new tools makes it easier for the citizen to sort out certain formal issues. The availability of e-services means time savings both for citizens and businesses. The process of creating an e-office requires changes in administration itself, it is necessary to hire specialists, purchase and maintain specialist programmes and equip the office in appropriate telecommunications and teleinformatics networks. Nevertheless, the use of modern technologies in public administration is supposed to improve procedures and the system of providing services, and complete personal interactions with a virtual dimension. As a consequence, these activities will help to save time and increase the satisfaction of citizens.

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