SOME PERSPECTIVES OF E-GOVERNMENT DEVELOPMENT IN SLOVENIA

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The information society has developed with differing levels of success in Western Europe and the United States, as well as in Eastern Europe. E-government – a significant element of the information society – has an important and leading role in some countries, while elsewhere it lags well behind the development level seen in the private sector, non-governmental organisations, and even among citizens. Different strategies and action plans have been adopted in many countries, with different results being achieved against a backdrop of optimistic forecasts and hopes.

Though Slovenia has become a new member of the European Union, Slovenian public administration still retains many characteristics of the old political system and is attempting to successfully apply e-government in practice, both in terms of back-office and front-office operations. Its development has been underway for just a few years, and includes some areas that match the national strategy and plans, and some areas that diverge from them.

The Faculty of Administration has been monitoring this development for some years and adapting its range of measurements to take into account the actual state of development in both Slovenia and in more developed countries as well as the latest trends in e-government.

This paper presents an overview of how e-government in Slovenia has developed since 1999 and uses specific indicators to provide a detailed look at individual areas of e-government. The methodology described is one of a number that have been used to evaluate e-government development. The indicators used to evaluate the infrastructure, back office and operations with businesses and citizens cover most of the supply side, while recently the indicators have been improved so as to include the demand side as well. The comparability of different evaluation methodologies is clearly of use and is therefore considered herein. Therefore, consideration is given to the eEurope project, the European Union's main evaluation system for e-government services, which covers 20 services.

The overview of development over several years augments the detailed study of development today, which provides a sound basis for analysing the positives and negatives of progress to date within and outside the planned development strategies, in addition to providing clear findings on the effects and impacts. The results of the analysis offer ways of improving the e-government strategy and the present situation, and ways of adjusting the policy to achieve the desired final objective as quickly as possible. They also enable a cross-country comparison of e-government development.

Chapter 1: Introduction

The first steps of development of e-government are recent history now and it can be said that some reviews of the steps taken till today should be made. For those countries, which have taken care of methods that could measure the development of e-government and its inclusion into the information society, it is now time to review and analyse the progress made over the years and see what has been done and what has not. For others, the only way of learning is through their own mistakes or mistakes of others. In many countries the measuring has been changing and adapting to the new situations. At the same time it was improving on the basis of simultaneous analysis. The results have been studied and published. Changes in the strategies and policies of e-government, considering the results, were made, or perhaps not.

In Slovenia, measuring e-government development has started years ago. One of the groups that considered e-government measuring important was a research team at the Faculty of Administration at the University of Ljubljana that launched the first measurement and published the results in 1999. Over the years the methodology changed and adapted to new situations and improved in response to the mistakes noticed. The range of measurement extended over the years to include more and more indicators. In the first years we covered only the supply side of e-government, namely different institutions of public administration and their development status, the services they offered, the information and data published on their web sites. Later on we started to think about the demand side, which is in fact the most important element that should be considered, but is hard to measure with limited human and financial resources. The supply side should be a mirror of the demand side and if these two match then the situation at that moment is ideal. What is needed should be offered. Of

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course, both sides change and develop, which is necessary and desired. Without changes there would be no progress.

In this paper, the results of the studies at the Faculty of Administration are used to present how Slovenia has been progressing in e-government development in last few years.

Chapter 2: Methodology

The methodology of this study differs depending on the segments of research it is used for. There are different segments of measuring:

- IT (Information technology) infrastructure and back office of public administration (G2G);
- government to customer segment (G2C, G2B) including the sub-segments web sites, responsiveness, portals and e-services analyses.

The methodology of measuring back office and IT infrastructure of public administration bodies comprised a paper questionnaire sent to administration bodies. In 2004 433 questionnaires were sent to ministries (15), administrative districts (58), municipalities (193), hospitals (27), courts (11), educational institutions (41) and other public administration bodies (88). The response rate was 37.5% in general, but if we look at separate groups in some cases the response rate was so low that the results from it would not represent the general situation in that specific group. The response rates were as follows: ministries – 53%; administrative districts – 62%; municipalities – 44%; hospitals – 26%; courts – 54%; educational institutions – 17% and other public administration bodies – 13%. These rates do not apply to each single question since all of them were not answered equally. Therefore with some questions the response rates are even lower. Considering the response rate and the number of answers received we decided not to analyse courts and other administrative bodies.

The questionnaire was composed of six segments including technological equipment, software, electronic data exchange, IT policies, efficiency factors and customer communication frequency segment. The responsible representatives of each organisation answered these questions. Since the goal of this paper is to compare results with those from previous years, only the first four segments that were included in previous years were analysed.

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<th>Indicator</th>
<th>Administrative districts</th>
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<td>Timelines of information</td>
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\(^{\dagger}\) means that indicator is not relevant for the particular body

For web pages analysis we choose three types of administrative bodies: ministries, administrative districts and municipalities. First analysis we made in 1999 and then repeated it 2000, 2003 and 2005. While in 1999 and 2000 we surveyed all bodies of selected types that were online, in 2003 and 2005 we measured all 15 ministries with the selection of additional 6 bodies in their structure, all 58 administrative districts and a representative sample (as regards the population size and regional
distribution of municipalities) of 80 out of 193 municipalities. Besides the presence of these bodies on the web, we also studied the contents and functionalities of their web pages. A list of main types of indicators that have been measured at particular types of government bodies through years is presented in Table 1. As the list of indicators has been modified and updated each year, time series analysis is limited.

The methodology for the evaluation of life-event portals is based on qualitative multi-attribute models. The evaluation takes place at three levels that correspond to the three basic components of the portal. As each life-event portal supports one or more life-events, its overall evaluation depends on the evaluation of particular life-events. Similarly, each life-event comprises a number of different electronic services; hence its assessment depends on the assessment of these services. Thus, the evaluation methodology consists of three models that facilitate the evaluation and analysis of (1) electronic services, (2) life-events, and (3) life-event portals as a whole.

A portal is evaluated by aggregating assessments obtained at the lower level of the model. Assessment at each level is facilitated by a multi-attribute model, an approach that originates in the field of decision analysis (Clemen 1996). Each model consists of hierarchically structured attributes and corresponding utility functions (for more details see Leben and Bohanec 2003). Figure 1 illustrates the three-level model of attributes that were used in life-event portals evaluation. Each model is based on a hierarchical tree of attributes. Some attributes are basic (they are directly assessed and therefore represent inputs of the model – they are marked in italics in Figure 1) while others are aggregated (their assessment depends on the assessment of attributes at lower levels and the corresponding aggregation procedure). The attributes in the illustrated hierarchical trees represent the characteristics of the evaluated entity (e-service, life-event or life-event portal).

![Figure 1: Structure of characteristics for life-event portal evaluation at different levels](image)

In the evaluation of life-events and the portal as a whole, only the characteristics relevant for the design and delivery of e-services based on the life-event approach (Vintar et al. 2004) are considered. The model for assessing e-services is based on the four-staged framework for the evaluation of e-service on-line sophistication (Cap Gemini Ernst & Young 2003). The individual characteristics defining a particular stage of on-line sophistication are analysed separately and then aggregated into the overall assessment of e-service. In addition to these characteristics, the clarity of e-services is also considered. The final assessment of life-event is aggregated from the assessments of the maturity, usage, and clarity of life-event. The maturity of a life-event depends on the level of life-event on-line sophistication, which is calculated from the assessments of e-services evaluated in a particular life-event. The final assessments of life-events influence the final assessment of the portal as a whole through the characteristic that evaluates the way in which life-events are handled. Other characteristics for life-event portals assessment evaluate the scope of a life-event portal (how well the portal is covered with life-events and topics), different instruments helping to identify an adequate life-event (access to life-events) and the standardization of life-events design and structure.

The methodology for measuring responsiveness was based on e-mail as a modern communication channel. Many authors see responsiveness as an element of interaction between e-government and citizens that influences the development of different policies and e-democracy. IT itself and related services enable better interaction and are an interesting potential in developing policies and increasing the responsiveness of both public organizations and politicians (Sims 2001). Researches in this field who consider responsiveness measurement as described in this paper are rare and hard to find (West 2003, SOCIITM 2003). Different sources and literature show a tendency towards the development and
implementation of this and similar kinds of benchmarking that originate from different governmental strategies and plans of many countries in the world.

Measuring responsiveness can be focused on different phases of the working process. It can be measured as the initial response considering a certain procedure or as the final response at the end of the procedure (finished administrative procedure with a decision, certain information offered to the customer by the public employee upon the customer's request). Since the latter heavily depends on the procedure itself and on the current situation in the organization, we accepted the initial response as the point of measurement, i.e. response time from sending e-mail with a simple question till receiving a reply. For the purpose of this paper, the research methodology focuses on measuring the responsiveness of a customer's demand towards a public administration organisation or a specific employee using e-mail. The target population were organizations of Slovenian public administration that were divided in the following segments: parliament – 90 e-mails sent; ministries – 15 e-mails sent; administrative districts – 58 e-mails sent and municipalities – 192 e-mails sent.

Based on the methodology applied by the European Commission (in the frame of eEurope benchmarking methodology) which is used to monitor the development level of government e-services provided on the Internet in member states, a similar analysis has been conducted also in Slovenia. The approach focuses on evaluating the development level of e-services using a four-stage model (Table 2). The e-service development level indicates how far the service has developed towards full electronic operation online (see Cap Gemini Ernst & Young, 2005). The European Commission has also issued a list of 20 basic public services that can be measured, 12 of which are for citizens and 8 for businesses. For some services (due to their characteristics) the maximum possible stage of development was limited to stage 3 (personal documents, declaration to the police, birth and marriage certificates, changes of address and submission of statistical data). The average assessment of these services is used to evaluate the percentage of basic public services available on the Internet in each country.

### Chapter 3: Results

#### Back office

The back-office perspective is one of the most important elements of measuring since it shows the real situation behind the often beautiful façade made with web sites and portals. If we look at the e-services with corresponding processes and eEurope benchmarking model (see Table 2), stages one or two can be achieved without changing anything in the back office, but when stages three or four (transaction) are in question, then back office has to be changed at some extent. The back-office part of our measuring included two segments. The first one consisted of technological indicators while the second one comprised indicators showing use of software applications as well as electronic data exchange inside the organisation, inside the public administration and with the customers. A part regarding IT policies and the contents of e-mails form customers (private sector and citizens) was included as well.

The results were analysed according to two measurements in 2003 and 2004. The first segment of questions referred to technological equipment. The results show that employees who have to use the computer for their everyday job generally have one (Figure 2). Compared to the results from 2003 there was an increase in the number of computers in the group of hospitals and municipalities, where hospitals today still have a lower percentage compared to other groups. The percent of organisations where all employees have their official e-mail addresses is particularly low in the hospital group, while in other groups the situation is satisfactory. The percentage is almost 100% if
the benchmark is 'where more than 75% of employees have official e-mail'. Compared to 2003 the situation has not changed much since e-mail has been widely used for some time now. Access to the Internet is a common technology enabled very easily once personal computers and LAN (local area network) are installed. Almost in all bodies, over 75% of employees have access to the Internet, which is the same situation as in 2003. An unexpected and huge decrease was observed in the hospitals group where the 'more than 75%' indicator dropped from 14% to 0%. The reason might be inappropriate use of Internet for personal purposes, changed policies or other reasons. The digital certificates indicator is an important one since many e-services in the Slovenian public administration use them. This goes for e-business with customers as with internal and external G2G operations. Many bodies also use digital certificates for desktop security (Entrust solutions). The percentage is quite low in general but administrative districts are slightly ahead since they carry out most of the procedures that are included in the above-listed e-services. Comapred to the results from the previous year we noticed an increase in all groups. Access to LAN was linked to the size of each administrative body in the past, but today, when the Internet has become indispensable, this is no longer the case. The results are similar to the 'using computer' and 'access to the Internet' indicator. Compared to 2003 we only observed an increase in the hospital group. Common applications using a central database are a tendency for the future since the speed of data transfer is still increasing. The terminal technology is not an issue today. While technology and networks are widely used, common applications are not. The reason should not be searched in technology but rather in other legal, organisational and procedural aspects, as we can see from the obtained results. Implementing technology is the easy part and often a wrong beginning of implementing e-government. The percentage of bodies that have their own web site should be 100% but that is not the case. According to the survey answers, only 80% of municipalities' and 71% of hospitals' have a web site (100% in other groups) but a 15% increase was registered in municipalities comparing the results from 2003. We also measured the accessibility of different public databases (central population register, land register, etc.) and the current situation is the same as with the 'web site' indicator. However, compared to the previous year, a substantial increase was observed in all groups.

Figure 2: Percentage of administrative bodies using specific technology in 2004

The second segment of the questionnaire included types of data exchange in electronic form between an administration body and other bodies, citizens or the private sector (Figure 3). The analysed types of data exchange included physical media (floppy disk, CD-ROM, etc.), e-mail, LAN and the use of common applications with central database (web applications in case of G2C). In case of G2G and G2B areas, we included the indicator of exchange between two applications without human intervention (EDI, XML or other standard). In case of data exchange between different public administration bodies (G2G), the physical media level is low compared to others. Moreover, according to the comparison with 2003, the percent is lower in all groups and we think it will continue to fall in the future since electronic communication channels like Internet an e-mail are the right substitute. E-mail exchange is very common in all institutions and an increase was noted in the previous year. Standardised data exchange between the applications of different bodies is not that frequent, especially in municipalities. The high percentage in hospitals group is the consequence of the health information system in Slovenia where all hospitals and health centres are connected with the Health Insurance

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1 www.entrust.com
Institute using one system. Except for the hospitals, we noticed an increase compared to 2003 (a 15% increase in ministries and administrative districts, 30% in municipalities). The common application was considered as an application with a central database used by many users simultaneously from dispersed locations. An interesting decrease compared to the results from 2003 was noticed in hospitals and administrative districts.

![Figure 3: Percentage of administrative bodies using a specific type of data exchange in electronic form in 2004](image)

Regarding data exchange with customers, four indicators were measured, three of which focused on citizens and the private sector, and one on the private sector only. Here physical media is used less than internally (see Media, G2G indicator) and the usage greatly decreased since 2003. E-mail is more common but again used less often (see Email, G2G indicator). It is interesting that most administrative bodies use e-mail to communicate with citizens more often than with the private sector (except hospitals). A decline was observed when comparing the results from 2003. The reason might be the focus on web sites, portals and web and mobile applications aimed at decreasing the amount of e-mails. These represent (beside spam) much work for each employee in the organisation. The EDI exchange is much smaller externally than internally. The situation here is unchanged compared to the results from 2003 except in hospitals where a decrease of 30% was observed. The common application indicator is an aggregate indicator made for the comparison with 2003, although in 2004 we measured web applications and common applications for citizens and the private sector separately. Web applications for citizens are widespread everywhere but in hospitals, common applications in the private sector are generally at a low level, while web applications for the private sector are available in one third of ministries and municipalities, and slightly less in others. Exceptions are administrative districts with the 62% score in this indicator. The aggregated indicator compared to the 2003 results shows an increase with municipalities and administrative districts and a decrease with hospitals and ministries.

To a person familiar with Slovenian everyday life, the final review of this segment of questions reveals that better results are visible in the areas where greater emphasis and effort was put forth by the government at that time.

The last segment of questions focused more on the organisational rather than technical area. Policies are an important mechanism enabling better efficiency of the technological segment. A quick review of Figure 4 shows a disturbingly low level in this area. The more organised parts of public administration have addressed these issues while in more closed and smaller environments awareness is still lacking. Inappropriate Internet usage is either not a problem or an undetected problem (regarding security and efficiency issues). Compared to 2003 the situation generally improved and we are hoping for that trend to continue. The e-mail policy issue might become increasingly acute because of spam but in small organisations the problem is not that obvious. The situation has not changed since 2003, indicating that awareness is still inadequate in some bodies. The IT supply and maintenance policy is usually solved by means of a contract with a supplier or delegation of a special department. The percentage did not change compared to the results from 2003. We assume that this is not an issue of the latest changes in the field of information technology in the world; rather it holds for IT or any other classical equipment. Either you implement these rules or you do not. The web site editing policy is an issue that should be resolved while preparing a web site but many of the official web sites in the world deal with inaccurate and old data that 'someone' put on the web latter on. Compared to 2003 the situation improved in ministries, administrative districts and municipalities.
Front office – Web pages

The analysis of the web-pages research results shows general improvement as regards number of bodies presented on the web and sophistication of their web sites. It is pleasing to find out that a majority of administrative bodies are presented on the web (Figure 5), only approximately a fifth of municipalities are without web sites. In 2003, major work was done in the introduction of the joint administrative districts portal. The main advantage of the administrative districts portal over the websites of individual administrative districts is in information and services being now gathered in one place in a uniform way, which makes their use and updating easier and more efficient.

Figure 5: Web presence of Slovenian ministries, administrative districts and municipalities

However, much will still have to be done about the web sites contents and functionalities (Figure 6, Error! Reference source not found.). The most developed in this respect is administrative districts portal. Its main advantage over the websites of individual administrative districts is in information and services being now gathered in one place in a uniform way, which makes their use and updating easier and more efficient. The information and services mentioned refer especially to the administrative procedures, the implementation of which is the key task of the administrative districts. A special praise has to be given to a uniform guide on administrative procedures, which is well accomplished in terms of its structure and contents (Figure 6, right, Error! Reference source not found.), with exhaustive information on practically all administrative procedures in the competence of administrative districts and most application forms being available, too. However, one would miss several transaction services, which will give the information provided a real value (Error! Reference source not found.). Only birth, marriage and death certificates could be ordered through the portal, and individual person can also view his/her own personal data from the central population register. In addition, all basic contact information for each administrative district are published on the portal, i.e. central e-mail addresses, phone number, postal address, office hours and organisational structure. More than half administrative districts publish also phone number and e-mail address of their heads, heads of departments and other employees. Unfortunately, the 2005 survey revealed that portal has not been maintained properly, as many data on regulations are out of date and some transactional services, that are in the administrative districts competence and were implemented after the introduction of the portal, are not accessible from it. Another weakness of the administrative districts portal is also lack of information on goals projects and work statistics (see Figure 6, left), while budget, regulations and public tenders relevant for administrative districts are in competence of ministries. Portal users also have no special mechanism
(special e-mail address, e-form or e-forum) to send remarks or suggestions in respect of administrative procedures and other activities of administrative districts.

![Figure 6: Information contents (left) and navigation possibilities (right) on the web-pages of administrative bodies in 2005]

The analysis of the ministries web-pages shows increasing frequencies and variety of particular information contents over the years (see Figure 6, left). The information updateness is also on the suitable level. But surprisingly, still very few ministries publish all basic data (mainly due to the official hours), but all of them offer at least one contact e-mail address. Moreover, most of them publish also e-mail addresses and phone numbers of ministries, heads of sectors and other employees. Ministries regularly publish news, information on their projects, public tenders and valid regulations, while draft regulations are published very rarely. Many ministries and bodies in their structure (62%) offer also access to particular databases, for example access to different customs and geographical data, associations register, register of stolen or found objects, missing persons, media, journalists and cultural heritage. Comparing to the previous researches, ministries improved a lot in respect of administrative procedures (see Figure 6, right, Error! Reference source not found.). As late as 2003 no ministry had a list of administrative procedures or a list of services, almost 80% of them had a description of at least one procedure (90% in 2005), almost three-fourths publish application forms
(86% in 2005) and only 13% of them allowed also their electronic submission (43% in 2005\(^2\)). But the problem that still remains is that the web contents are not yet adapted to the user needs, but to the internal needs of the ministries, i.e. you have to know in advance which organisational unit is responsible for particular procedure.

The analysis of municipalities’ websites reveals the worst situation (Figure 6, Error! Reference source not found.), although they has been improving gradually over the years. An average municipality presents only a third of the analysed contents on its website, which points to a relatively poor presentation of municipalities on the web. However, it has to be taken into account that the websites of larger municipalities are much more comprehensive and technologically developed than those of smaller municipalities (they hardly bring together appropriate amount of resources – financial and human - to set up and especially maintain the web sites). It is interesting that many municipalities do not publish all basic data and still 5% of them still have no e-mail address on their web pages. Since municipalities have numerous contacts with citizens and companies, administrative procedures, resulted in services for the customers, are one of the most important tasks of municipalities. The situation in this respect has improved a lot over the years. Yet, the situation is still far under the desired level of development. At the moment only some municipalities publish lists of services or administrative procedures, 30% of them provide guides to at least one administrative procedure, about 64% offer also at least one application form and only 5% (two examples) enable electronic applications. In addition one municipality allows only monitoring of the procedures via the Internet or SMS messages. Another problem of municipalities’ web-pages is also information updateness, since almost 40% of municipalities update them less than monthly.

**Front office – Portals**

The Slovenian governmental portal e-Uprava\(^3\) was analysed within a study that evaluated existent life-event portals (mostly European) in August 2002 and June 2003 (Leben et al. 2004) and in September 2004. In the analysis, the following life-events were considered: moving house, driving licence (learning to drive and getting a driving licence), passport (applying for or renewing a passport) and starting a business.

A comparison of the assessments of the characteristics for the overall evaluation of the Slovenian portal is shown in Figure 8 (left chart). The thicker vertical lines illustrate the highest possible assessment for each characteristic. The standardisation of and the access to life-events on the portal improved significantly already in the second measurement, while the scope of the portal has expanded gradually from the first to the third measurement. The highest possible assessment for this characteristic in year 2004 increased the final overall score of the portal.

![Figure 8: Comparison of assessments for a Slovenian portal: characteristics for overall portal assessment (left) and final assessments of analysed life-events (right)](http://e-uprava.gov.si/e-uprava/en/portal.euprava)

The assessment of life-event handling has improved by one grade in 2003, as three out of four analysed life-events attained one-grade higher final assessment (Figure 8, right chart). These life-events fall within the competence of administrative districts (as local divisions of central government in Slovenia); therefore higher assessments are the result of introducing administrative district sub-portal. The only

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\(^1\) The most interesting services on the third level of development are: pre-enrolment in higher education, job search, different e-taxes services, ordering data from land register, declaration to the police and ordering data from the criminal register.

\(^2\) http://e-uprava.gov.si/e-uprava/en/portal.euprava
life-event which hasn't improved in the second measurement is 'starting a business', because only some scattered services related to this life-event were offered in 2003. However, in the third measurement it has improved significantly, as a special business site of Small Business Development Centre4 was introduced. The site is very well designed and structured and offers a lot of relevant information; therefore the assessments for the elements of life-event usage as well as for the levels of coordination and clarity have improved. In the last measurement, the final assessment for the life-event 'passport' also increased because of a comprehensive frequently-asked-questions rubric.

![Figure 9: Comparison of average assessments of life-event evaluation characteristics on a Slovenian portal](image)

Figure 9 shows a comparison of the average assessments of the characteristics evaluating life-events at the Slovenian portal 'e-Uprava'. The thicker vertical lines illustrate the highest possible assessment for a particular characteristic.

The standardisation of e-services that evaluates the level of the services' design standardisation within a particular life-event has reached the highest possible average assessment already in the second measurement when it received the highest assessment in all analysed life-events, unlike in the first measurement, when for all life-events except in 'driving licence' this characteristic got the lowest possible assessment. In the last two measurements, the average assessments for life-event clarity and the level of coordination have been gradually improving. The coordination for 'starting a business' reached the second lowest level in the first and second measurements, whereas for the remaining three life-events it improved from the lowest possible one in 2002 to the second highest in 2003. All analysed life-events reached the second highest possible level of coordination and the highest possible level of clarity in the last measurement. Access to services that evaluates different instruments helping to access e-services within a life-event was assessed with the lowest possible grade for all life-events in the first two measurements; encouragingly, it improved by one grade for the life-event 'passport' and reached the highest possible assessment for the life-event 'starting a business'.

Life-event sophistication (calculated from the assessments of the corresponding e-services) was assessed with the second lowest possible grade for all analysed life-events in all three measurements mainly because of the low level of service sophistication. All characteristics that affect the level of service sophistication (see Figure 1) reached the lowest possible assessment for all analysed services, with the exception of downloadable documents, which were offered in 50% of the analysed services in 2003 and 2004. However, the majority of services received the highest possible assessments for the provided information and for the clarity of e-service presentation.

**Front office – E-mail Responsiveness**

The number of bodies that we sent an email to varies over the years. The number of ministries changed because of the after-election reorganisation of the government. The number of municipalities having official e-mail address published rises every year according to the technological development of municipalities; and yet still has not reached 100% (all 193 of them). In 2003, a portal for all administrative districts was set up, so all 58 finally published their official e-mail addresses. The results from the responsiveness test show that the situation varied since 2000 (Figure 10). The number of replies we received from administrative districts decreased from 2000 to 2003 and raised again in 2004. Administrative districts have much better response rate than ministries and

4 http://www.pcmg.si/index.php?root=4
municipalities. The critical low situation in 2003 is explained as the result of implementation of administrative district portal, where all e-mails were published but few additional preparations was done (human resources and organisational rules). The same critical situation was reached at municipalities and ministries in 2004 though we think that reasons were different. Many municipalities implemented e-mail technology in 2003 and 2004 and many published their e-mail address on the web for the first time. According to our opinion the lack of business culture, human resources and rules contributed to lower response percentage with municipalities. But considering municipalities the response time is shorter which can be seen from the steeper beginning of the curve in 2003 and 2004. With ministries there is on logical conclusion since technology, human resources and experiences are not in question.

![Figure 10: Real case responsiveness by e-mail for different public administration bodies](image)

We can see that the importance of responsiveness in public administration via new IT-based electronic channels has by now been acknowledged by most countries and their governments. This conclusion can be made on the basis of reading their strategies and action plans. However, only some of them are also aware of the importance of measurement in this field and of reacting according to the measurement results while making decisions for the future.

The situation in Slovenia is similar to the rest of the world although the responsiveness has been measured at the Faculty of Administration for five years. The results show that over the years the situation has improved but still did not reach the desired level. If we consider the legally binding equality of paper and electronic form, the wide-spread presence of IT in public administration and solid communication infrastructure, the situation should be better. The reason for the current state is not so much of technological nature but more of organisational culture.

**Front office – E-services**

The results of our surveys, which have now been conducted for three consecutive years, reveal steady improvement in the level of e-services sophistication on the Internet (Figure 11). On average, Slovenia lags behind the old EU member states by 12%; compared with previous years, however, the gap has almost halved. Compared with the 10 new member states, Slovenia is 7% above the average. Given the planned development of e-services, we can expect the gap between Slovenia and the EU average to continue narrowing in future, largely due to further development of business e-services, which have almost caught up with the services for citizens this year. This is, in fact, rather unusual, since in most other countries business e-services are generally much more developed than e-services for citizens, the reason being that companies normally have more extensive and regular contacts with public administration than citizens.

Among the services assessed with the highest degree of sophistication are e.g. obtaining birth and marriage certificates, services provided by public libraries, declaration to the police, job search and submitting statistical data to the statistics office. These are followed by income-generating services implemented within the ‘e-Taxes’ system: income taxes, corporate tax and VAT; while the service ‘social contributions for employees’ is currently in the beta testing phase and will be available to users shortly. The e-Taxes system enables users to complete and submit applications and follow the progress of the procedure, while the delivery of final results is still performed in the classical manner. Payments can be effected electronically through different e-banking services; however, these are not linked with the e-Taxes system and hence not taken into account in measurements. We should also mention the services that are completely electronically supported yet cannot be adequately assessed due to the methodological restrictions of the 4-stage model. Customs declarations, for instance, have been filled
in and submitted electronically for over 10 years via the EDI standard, but this service is not available on a publicly accessible web page.

Chapter 4: Impacts and effects - conclusion and comparison between Slovenia and other countries

The back-office segment is the beginning of e-government development in practice. Most government bodies start off with the technological part introducing personal computers and LAN. Later on the Internet and e-mail access are provided and web sites offered to the public. Usage policies are implemented. The presentation of a public body and their services are published on the web and as services get more sophisticated the back office is redesigned or changed. Most administrative bodies in different segments of public administration have by now completed the equipping phase. This phase generally ended before 2003. The phase of implementing and including the Internet and web pages in business processes is finished in some bodies but not all. Web sites are still not available for all municipalities and hospitals. Financial resources needed to set up a web site are not an obstacle today. More and more e-services using digital certificates have emerged and we expect a better situation in this area in the following years. These services demand better connectivity and G2G data exchange and
since they are offered to the customers, data exchange is needed there as well. Data exchange with physical media is in decline, and greater interest is focused on web application, and shared and public databases. It is interesting, though, that even e-mail exchange with customers is decreasing, which shows that more error-free and standardised web forms and applications are in progress. In the final omni-present-electronic-world some order and control is needed by regulation and policies. These policies are still lacking for many areas in the everyday business of administrative bodies but some improvement has been noted in our results.

Results of web pages surveys show that they are more and more developed, also the contents are more and more comprehensive, but navigation possibilities are not enough sophisticated, as the structure and access to contents are based mainly on the internal structures and not on the basis of users needs. This situation is also reflected in the case of e-services. They are, with exception of administrative districts’ portal, very poorly presented on the web. It is true that most administrative bodies, except municipalities which are even worse, publish information on at least one service or corresponding administrative procedure, many of them also provide at least one printable/downloadable form, but in only some cases e-submitting of forms is possible, let alone transactions and integrated services or life events. On the other side one must take into consideration that only a small part of all services that are offered by administrative bodies are presented on the web.

Another weakness is the up-datedness of the contents, which is not on the satisfactory level, particularly in municipalities, which in one way or another show worse e-government development level, comparing to the other administrative bodies. Administrative bodies also not stimulate the possibilities of citizens’ participation in democratic processes enough. They not adequately publish draft regulations, information on strategies and projects, but the worst is that they even cancelled many e-forums, through which the public could, in the past, express their opinions directly to the responsible servants. The responsiveness to e-mail messages in the Slovenian government is still at a low level regarding the legislation in force that requires an answer to each and every e-mail message received from citizens or the private sector. A comparison with results from abroad shows a small delay in Slovenia, especially because of the smaller intensity of electronic communication between citizens and public administration. Many public administrations in the developed world had already been faced with the explosion of messages they did not expect and needed some time to adapt to the new situation. In Slovenia the explosion will certainly occur in future (Figure 13). Therefore the Slovenian public administration should prepare according to experience from other countries and modernize and redesign its business processes, use web pages as information stations that with their rich contents preclude citizens from sending e-mails and implement quality information systems that will manage large amounts of e-mails and other forms of electronic data.

Figure 13: Responsiveness of e-government regarding the increase in e-mail messages from citizens and the current state in Slovenia and the developed world

Wishful thinking of governments and the management of public administration, legal acts, technology and published e-mail addresses are not enough to persuade citizens that paper and electronic form are equal. The task of the government is to make a step forward in the field of information culture, standards and policies and ensure successful development of e-government and use of e-services by citizens in a faster, better and more quality way in the future.

As far as the design and the offer of services related to life-events are concerned, the Slovenian state portal ‘e-Uprava’ has made good progress in the period of two years. In the future, it will be necessary to improve especially various ways of access to life-events on the portal and the mechanisms of access to services within life-events as well as to provide as high as possible level of technological sophistication of offered e-services, since the analysed services present mainly the information level.
Chapter 5: References


